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Geneva, 28 June 1991

INTERVENTION OF THE NETHERLANDS DELEGATION ON BEHALF OF THE EUROPEAN COMMUNITY AND ITS MEMBER STATES

Second session of the Intergovernmental Negotiating Committee for a framework Convention on Climate Change (Geneva, 19-28 June 1991)

Mr Chairman,

You have asked for comments on the structure of the Convention. On behalf of the European Community and its Member States I want to stress the need for a Convention which will be, at the same time, strong, effective and flexible. In our view the Convention should inter alia commit contracting parties to establish policies and strategies to limit emissions of greenhouse gases taking into account their economic possibilities and need for development and to promote the use of the best available - environment friendly - technology with lower or no emission of greenhouse gases. The Convention must also facilitate the transfer of such technology and provide for adequate financial resources to developing countries in order to help them meet commitments.

In order to ensure a continuous process and an increasingly effective implementation of the commitments, the Convention should include what has come to be called a pledge and review process. Contracting parties will have to report on the measures they take or plan to take in order to meet their obligations. This reporting will be subject to formal review.

The need for flexibility stems from the nature of our task, which extends over a long time span, well into the next century at least. We will have to deal with a whole range of different substances and our action will affect activities in many important economic sectors. Long-term measures, to be continuously adapted to evolving circumstances, will be required in order to achieve the objectives of the Convention.

Protocols, which allow for a rapid implementation of specific commitments concerning groups of countries are, in our opinion, a way to achieve this. Stabilization of CO_2 emissions by the year 2000 in general at 1990 level by industrialized countries, individually or jointly, is in our view a crucial part of the package to be agreed in Rio in 1992 - and an example of a commitment that should preferably be embodied in a protocol. Similarly, measures to curb deforestation and promote sustainable forest management and afforestation should be agreed in a protocol.

NGO STATEMENT
28 June 1991
INC SESSION GENEVA

Mister Chairman, delegates.

As environmental organizations from all the major regions of the world, we would like to thank you for this opportunity to briefly address your Committee today.

A great many disparaging things are said about 'committees', -- but yours has to be an exception. It may be a 'Committee' but it is also the world's best hope for avoiding the potential catastrophe of run-away climate change.

Your work is therefore vital to the future of this planet, -- and its outcome is eagerly awaited by people all over the world. The world will be pleased to hear that the Intergovernmental Negotiating Committee For A Framework Convention On Climate Change has completed its organizational work -- and started to negotiate that Convention.

We might also say the world will be relieved. Millions of people are already under the threat of sea level rise, desertification and cyclones will be mightily relieved. Your mandate is not to treat the likelihood of climate change as a theory, but as a fact.

Fortunately there is indeed some progress to report. Yet you still stand at the foot of a mountain which you must climb. After two sessions, you are still in the base camp. Only now are you discussing - indeed negotiating - which routes you might take to the summit, or even which summit you are climbing to.

This is a difficult task in itself but it is not one which the waiting world will be particularly impressed by. It may seem unfair to those of us who work our way through the necessary preliminaries of international agreements -- but it is results that will count -- and only those.

The world expects to see significant progress by the time of the 'Earth Summit', the United Nations Conference on Environment and Development. That is now under a year away.

In less than twelve months you must agree not just a framework but some commitments to action. If, by the time of the UNCED Earth Summit, more developed countries are not seen to commit themselves to cut carbon dioxide emissions, if the Convention does not bring in new and additional commitments as well as funds: it will be seen to have failed.

Right now our fear is that the Negotiations will fail to live up to worldwide expectations for an effective climate convention by 1992. So by your Nairobi session it is essential that the developed countries agree on common action to reduce their greenhouse gas emissions.

This means <u>all</u> developed nations Mr Chairman, from the biggest industrial carbon dioxide polluters down to the smallest. And especially the biggest. Without such commitments Mr Chairman, by the time of the Earth Summit, your mountaineers will remain stuck in base camp. At present some of them are even refusing to leave their tents.

Unless we see movement very soon, June 1992 will arrive, the attention of the world will focus on this Intergovernmental Committee, and we will find that while it has a route map, it is still at the foot of the mountain.

For politicians this will be an embarrassment. For future generations, for the poor and vulnerable, it would be a disaster.

We urge the bureau and all countries to use the intersessional period to do all they can to consult and advance consensus. And to secure the resources needed to enable developing countries to play an effective part in negotiations. This does not only mean air tickets and per diems, it means the capacity to educate the public and to provide all levels of decision-makers with the information they need, from the village to Ministries in national capitals. Mister Chairman, in recent days we have heard many of the right words being used.

The 'precautionary principle' -- taking preventative action, new and additional funding -- better use of existing resources -- binding limits on greenhouse gas emissions. In our view, the tragedy is that few of the delegations are yet using all of the right words together. We fervently hope that this will change.

We hope that all countries will come to realise that reaching an agreement on averting the threat of climate change is not an option but a common historical necessity. We appeal to those in every continent who are presently standing back from commitments, to recognize that this will be an easy process to keep out of, but a very difficult one to get back into.

We urge the North and the South to come together -- and use the vital need for agreement on the climate issue to resolve long-standing differences over development and environment, rather than to allow those differences to stand in the way of agreement.

We welcome the growing recognition that additional resources are needed to ensure the effective participation of developing countries in these negotiations. We urge all developed countries to contribute immediately to the Trust Funds set up for that purpose and for the work of the Secretariat. Including those already giving on a bilateral basis.

We agree with the G77 that developed countries must lead by example and not impose counter-productive solutions. We applaud those developed countries which have already made commitments to cut their emissions.

The target must be to stabilize greenhouse gas concentrations at a level which will prevent dangerous anthropogenic inteference with climate. As the Stockholm Environment Institute has pointed out, only a rise of one degree centigrade, or a tenth of that each decade, stands between us and the widespread destruction of major ecosystems.

Governments must tread more lightly on the earth - we already tax her capacities to the limit. Mister Chairmen, Ladies and Gentlemen, we are aware of your problems, and as a network of Non- Governmental Organizations from over thirty countries, with partners in many more, we are ready to play our part in helping overcome them where we can.

But time is not on our side. It is no longer appropriate to say that the world stands at a threshold, or at a crossroad. There are many reputable scientists who believe that climate change has already begun. We therefore wish you all speed in reaching an agreement, and urge you to make sure it lives up to the world's expectations. Mister Chairman, Delegates, we thank you.

ED/Conf./G.2
18 June 1991

MINISTERIAL CONFERENCE OF
DEVELOPING COUNTRIES ON
ENVIRONMENT AND DEVELOPMENT
BEIJING, 18--19 JUNE 1991

BEIJING MINISTERIAL DECLARATION ON ENVIRONMENT AND DEVELOPMENT

We, the Ministers from forty-one developing countries,* met in Beijing, at the invitation of the Government of the People's Republic of China, from June 18 to 19, 1991, at the Ministerial Conference on Environment and Development, and having discussed in depth the challenges faced by the international community in establishing norms of cooperation for the enhancement of environment and development, particularly the implications for the developing countries, declare as follows:

1. We are deeply concerned about the accelerating degradation of the global environment. This is largely on account of unsustainable development models and life styles. As a result, the basic elements indispensable for the human life -- land, water and atmosphere -- are gravely threatened. The more serious and widespread environmental problems are air pollution, climate change, ozone layer depletion, drying up of fresh water resources, pollution of rivers, lakes and the marine environment including the coastal zones, marine and coastal resources deterioration, floods and droughts, soil loss, land degradation, desertification, deforestation, loss of biodiversity, acid rain, proliferation and mismanagement of toxic products, illegal traffic of toxic and dangerous products and wastes, growth of urban agglomerations, deterioration of living and working conditions in urban and rural areas, especially of sanitation, resulting in epidemics and other such problems. Furthermore, poverty in the developing countries is becoming aggravated, hampering the efforts to meet the legitimate needs and aspirations of their people and exerting greater pressures on the environment.

2. We affirm that environmental protection and sustainable development is a matter of common concern to humankind, which requires effective actions by the international community and provides an opportunity for global cooperation. Against this background and out of a strong concern for the present and future generations, we hereby reaffirm our solemn commitment to

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* For the list of developing countries attending the Conference, please see Annex.

7/12

regard, particularly by establishing an international funding mechanism for this purpose.

12. We are gravely concerned with the continuous increase in the green-house gases leading to climate change and its likely implications for the global ecological system, especially the threat that they pose to the developing countries, and to the island and low-lying developing countries in particular. Responsibility for the emission of green-house gases should be viewed both in historical and cumulative terms, and in terms of current emissions. On the basis of the principle of equity, those developed countries which have contaminated more must contribute more. Developed countries should therefore commit themselves to adopting measures to halt human-induced climate change and to setting up mechanisms to guarantee the environmental security and development of the developing countries, including the transfer to the developing countries, on preferential and non-commercial terms, of technologies for this purpose.

13. The framework convention on climate change currently being negotiated should clearly recognize that it is the developed countries which are mainly responsible for excessive emissions of greenhouse gases, historically and currently, and it is these developed countries which must take immediate action, ~~with time bound targets~~, to stabilize and reduce such emissions. Developing countries cannot be expected to accept any obligations in the near future. However, they should be encouraged through technical and financial cooperation to undertake measures within their plans, priorities and programmes which contribute both to their economic development and to the efforts to tackle the problem of climate change, without prejudicing their growing energy needs. The framework convention must include, inter alia, firm commitments by developed countries towards the transfer of technology to developing countries, the establishment of a separate funding mechanism, and the development of the economically viable new and renewable energy sources as well as sustainable agricultural practices, which constitutes an important step to deal with the major cause of climate change. In addition, the developing countries must be provided with the full scientific, technical and financial cooperation necessary to cope with the adverse impacts of climate change.

14. We further agree that the purpose and principles of the Vienna Convention on the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, as amended in June 1990, are positive in nature. The implementation by the developing countries of the obligations under the amended Protocol is subject to the effective implementation by the states parties to the Protocol of the arrangements for the provision of financial resources and transfer of technology to the developing countries. We urge the developed countries to commit themselves to the long-term arrangements for providing adequate financial resources and the expeditious transfer of technology as required of them under the

Ständige Vertretung der Bundesrepublik Deutschland
Mission permanente de la République Fédérale d'Allemagne
Permanent Mission of the Federal Republic of Germany

Memorandum

Germany

Prof. Dr. Ansgar-Otto Vogel

Intergovernmental Negotiating Committee
for a Framework Convention on Climate Change

Second Session

Geneva, 19 June 1991

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I.

The Federal Republic of Germany has always given its sustained support to the decision taken by the international community to draw up as speedily as possible an international Climate Convention together with implementing protocols within the framework of government negotiations. The global threat increasingly being posed by the greenhouse effect and the expected changes in the climate demand immediate, consistent action in a worldwide environmental partnership. It would, we believe, be irresponsible to have further delays.

II.

Given this particularly urgent situation and the extraordinarily great need for action, the Federal Republic of Germany does not believe that the way negotiations have been going on in the past at this Intergovernmental Negotiating Committee is satisfactory.

During the last round of negotiations we used up a great deal of precious time discussing procedural and organisational questions and were still unable to find final answers to all of them. We feel a certain degree of disquiet at this fact. Thus we urge that the questions which are still outstanding with regard to office occupancy for both working groups be resolved right at the beginning of this meeting and that we get down to the substantial negotiations as soon as possible.

III.

The Federal Republic of Germany is striving to ensure that the Climate Convention and at least two initial implementing protocols be signed during the UN Conference on Environment and Development to be held in June 1992 in Brazil, with priority being given to limiting and reducing climate-relevant emissions and forest protection and afforestation. We are convinced that in these negotiations general obligations and special commitments should be

derived from the principle of prevention in the following three areas:

1. Measures to limit and reduce emissions of anthropogenic climate-relevant greenhouse gases, particularly the energy-induced greenhouse gases, especially CO2. Other gases such as methane, nitrous oxide and the precursor substances of tropospheric ozone - nitrogen oxide, carbon monoxide and volatile organic compounds - ought also to be limited.

   We believe it is obvious however that substances subject to the Montreal Protocol - chlorofluorcarbons (CFCs) - cannot be part of the obligations contained in a Climate Convention.

2. Measures to conserve, improve and create CO2 reservoirs and sinks in particular with regard to forests, and

3. Development of strategies and measures to adapt to changes in the climate and to reduce climate-related damage.

Basic binding obligations in these three areas should be contained in the Convention itself. Furthermore we believe it is necessary for other specific regulations to be contained in related implementing protocols.

Furthermore, it is necessary to carry out further research and systematic observation in order to deepen further scientific knowledge both on the complex interrelations between various implications of climate change and on strategies for action.

IV.

The provisions to limit and reduce greenhouse gas emissions, in particular carbon dioxide, must lead to a significant global decrease in these gases. We are of the opinion that a worldwide global stabilisation at 1990 levels of energy-related CO2 emissions ought to be achieved by the year 2000.

We are moreover convinced that initial reduction steps are required for 2005 and 2010.

We are aware of the fact that this is a very ambitious objective which can only be reached by means of consistent efforts on the part of us all:

1. The economically strong industrialised countries must, we believe, take immediate and crucial action to reduce their emissions of CO2. They have a particular responsibility to bear in this area since they are the ones who have caused most enrichment of greenhouse gases in the atmosphere and who have the scientific, technical and economic means required to find the solutions needed.

   The Federal Republic of Germany took action as early as 1990 with its national CO2 reduction programme. Its declared objective is a 25 to 30 % reduction by 2005 over 1987. We welcome without hesitation the fact that other countries have also begun to take similar measures.

2. Emissions in countries with hitherto relatively low energy consumption and thus low emissions are, in view of the necessary economic and social development, set to increase in future. These countries too, however, ought to play a part in the global effort against the greenhouse effect by striving after more efficient energy use in their economic activities, thus limiting their emissions. For us it is self-evident that the economically stronger countries, recognising both the principle of equal rights within an environmental partnership and that of environmental solidarity, support these countries in realising their obligations by means of technological cooperation and additional financial resources.

V.

For the purposes of forest protection in their capacity as CO2 reservoirs and sinks, we believe the following action must be prescribed in the Convention and in a related protocol:

- to conserve forests as extensively as possible in the best structure possible by counteracting the causes for the threat posed to them and by setting differentiated objectives and

measures to reduce annual rates of deforestation, and even put an end to forest destruction;

- the implementation of site-related afforestation and regeneration measures in order to create additional forests as CO2 sinks and improve CO2 binding processes in existing forests.

VI.

Every country should commit itself to developing national strategies and objectives to limit and/or reduce greenhouse gases. This requires, among other things, inventories of emissions and concentrations of greenhouse gases and of existing forest areas. It also demands an estimation of future developments and the analysis of possible strategies and measures and of what effects their application could have. Every country should cooperate closely with one another to take on this task on the basis of jointly agreed methods and procedures. The Convention will have to contain relevant provisions to allow and indeed guarantee these obligations are put into action by means of exchange of information, monitoring and review.

VII.

We know that measures to protect the earth's atmosphere demand international cooperation and coordinated international action. It is our desire to use the forthcoming Convention to contribute to a sustainable sound development. The aim should be to harmonize the exploitation of resources and mankind's economic activities into harmony with the finite nature of resources and the limited strain that can be put on the biosphere.

We are determined to protect man and the environment, both now and in future, from the damaging consequences of changes to the climate. It is my hope that we shall have success in this area. We ought not to leave Geneva without making satisfactory and substantial progress in our negotiations.

REPLACING CFCs with HFCs and HCFCs: OUT OF THE FRYING PAN, INTO THE FIRE.

Joe Farman OBE

The accumulation in the atmosphere of fully-halogenated halocarbons (CFCs and carbon tetrachloride) has had two adverse effects of global importance: depletion of the stratospheric ozone layer and increased forcing of global warming.

In response to the growing concern about these effects, in June last year the Parties to the Montreal Protocol agreed to phase out the production of CFCs by the year 2000. Thirteen of the Parties declared their determination to achieve an earlier phase-out. In March 1991 a regulation came into force in the European Community requiring the phase-out to be completed by July 1997.

However, it is also necessary to look at the proposed alternatives. One reponse of industry to the ozone problem was to introduce two new names: **hydrochlorofluorocarbons** (HCFCs) and **hydrofluorocarbons** (HFCs).

Both these classes of halocarbons are powerful greenhouse gases, and whilst HFCs pose no threat to stratospheric ozone, HCFCs will carry chlorine to the stratosphere. Damage to the ozone layer from the CFCs will continue to increase for several years after phase-out, because the chlorine partitioning between the lower and the upper atmosphere is far from equilibrium. *Irresponsible use of HCFCs will delay the onset of ozone recovery.*

We should be wary too of allowing long-term growth in releases of HFCs. The chemical industry has claimed that HFCs and HCFCs will contribute only 1% to the human-enhanced greenhouse effect in the decades to come. *But the reality is that this seriously underestimates the possible contribution of these gases to global warming.* For example, the substitution of HFC-134a for CFC-12 in car air-conditioning units, as envisaged by industry, would lead by the year 2075 to a *doubling* of the global warming *already* produced from CFC use in this one application *alone.* We shall fail to realise the potential benefits of the phase-out of CFCs if releases of HCFCs and HFCs are allowed to grow.

DO WE *NEED* OTHER HALOCARBONS TO REPLACE CFCs?

In many applications CFCs are no longer needed. Halocarbon-free processes are already available. According to the Technology Review Panel of the Montreal Protocol (1989) the global breakdown of CFC consumption in 1986 was:

a) 34% (340 kt) in aerosol products, sterilisation, food freezing, and other applications involving immediate release;
b) 25% (250 kt) in foam-blowing;
c) 25% (250 kt) for refrigeration, air-conditioning and heat-pumps (little more than1%, about 10 kt, in domestic refrigerators);
d) 16% (160 kt) for solvent applications (all CFC-113).

An early assessment by the chemical industry concluded that the HCFCs might capture 30% and HFCs 10% of this market. More recent studies suggest that the mix will include more HFCs and less HCFCs.

Running through the four CFC-application sectors:

a) **Aerosols etc**: no halocarbons are required, except perhaps in very small quantity for a few medical applications.

b) **Foam-blowing:** most types of foam can now be blown without halocarbons. Exceptions are extruded polystyrene slabs (XPS), where HCFC-22 and HCFC-142b seem to be the only alternatives to CFCs, and rigid polyurethane foam, where CFC-11 is still needed to produce the most effective insulation. Foam glass is a possible replacement for XPS and vacuum panels could with considerable potential gains in effectiveness replace rigid foam where dimensions are criticial.

c) **Refrigeration and air-conditioning:** the release of CFC 12 from mobile air-conditioning unites has been estimated to be 44 kt annually in the US alone, almost 10% of global use. Halocarbon-free processes must be developed in the long term. In the rest of this sector, recycling and better working practices can greatly reduce the demand for refrigerants.

d) **Solvent applications:** Halocarbon-free processes are already available in all but a very few technical solvent applications.

It is not unreasonable to conclude that between 80 and 90% of the 1986 consumption of CFCs was unnecessary. This must not be forgotten in assessing future needs for HCFCs and HFCs.

EVEN IF HCFCs AND HFCs ARE DEEMED NECESSARY, DO WE NEED *GROWTH* IN PRODUCTION, AS INDUSTRY PLANS?

If there is no waste and halocarbons are recycled, *constant* production will sustain a linearly growing market. ***Growth* in production is only needed to sustain an *exponential growth* in the market.** In the past, growing production was usually associated with accelerating waste, as typified by the growth of aerosol products. Consumers were, effectively, encouraged to throw CFCs away. As a result there is six times more chlorine in the atmosphere than in 1900.

The whole bank of refrigerants in the world can be replaced in a decade with quite modest constant production. For example, the total bank of CFC refrigerants in the European Community is almost certainly less than 60 kilotonnes (kt), and for all practical purposes that market is saturated. Thus, with modest plant producing say 10 kt annually, after 6 years the makers will be looking for other applications to justify running the plant at full capacity. The great variety of CFC applications arose in just that way. The production capacity set up initially was far too large to be employed in the refrigeration industry, once the initial phase of expansion had passed, and applications involving immediate release (which would have been called waste if the CFCs had been valued more highly) were eagerly sought.

Even in the few applications where HCFCs and HFCs are deemed to be necessary, constant production, and low wastage, are quite sufficient to sustain growth of application. Use need not involve release.

ENERGY-EFFICIENCY AND RELEASE OF GREENHOUSE GASES.

Refrigeration and air-conditioning use large amounts of energy. In Sweden and in thE United States, for example, these processes account for about 25% of the domestic consumption of electrical power. With hermetically-sealed units, emissions occur only as a result of accident, or by failure to recycle when equipment is scrapped. Energy efficiency is more important than the greenhouse effect of emissions. And considerable savings of energy are possible by using refrigerant mixtures. The most efficient which have yet been developed contain some mildly combustible components (for example, ammonia and HFC-152A, or propane). Compared with fire risks which already exist in most kitchens, the additional risk from a few ounces of refrigerant in a sealed unit appears small.

There is an urgent need to re-appraise regulations and attitudes which at present stand in the way of the introduction of combustible refrigerants capable of doing the same job planned for HCFCs and HFCs.

ABOUT THE AUTHOR:

Joe Farman OBE is the scientist responsible for discovering the ozone hole in Antarctica. An atmospheric physicist who has worked in Antarctica since 1956, Dr Farman is author of many distinguished research papers, and holder of a Polar Medal and a UNEP Global 500 award. He recently retired from the British Antarctic Survey.

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Department of State

OUTGOING
TELEGRAM

PAGE 01 OF 06 STATE 181217 0408087Z SHB5681
ORIGIN OES-09

INFO	LOG-00	ACDA-13	ADS-00	AF-00	AGRE-00	AID-00	AMAD-01
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E.O. 12356: N/A
TAGS: SENV ENRG EFIN ETRD EAID KSCA INC
SUBJECT: CLIMATE CHANGE - PROMOTING TECHNOLOGY COOPERATION
REF: (A) 91 STATE 145737 (NOTAL)
USEC/USOECD ALSO FOR EMBASSY

THIS IS AN ACTION CABLE.

1. SUMMARY: IN PREPARATION FOR UPCOMING NEGOTIATING SESSIONS ON CLIMATE CHANGE, DEPARTMENT HAS INITIATED INTER-AGENCY CONSIDERATION OF HOW TO APPROACH THE ISSUE OF TECHNOLOGY COOPERATION, A.K.A. TECHNOLOGY TRANSFER. WE PREFER THE TERM TECHNOLOGY COOPERATION BECAUSE IT SUGGESTS A TWO WAY PROCESS IN WHICH PARTIES IDENTIFY INDIVIDUAL AND COMMON INTERESTS TO SHARE INFORMATION, KNOWLEDGE, KNOW-HOW, EQUIPMENT, AND MANAGEMENT SKILLS.

TECHNOLOGY TRANSFER SUGGESTS A MORE LIMITED, ONE WAY PROCESS IN WHICH ONE GIVES AND THE OTHER RECEIVES. TECHNOLOGY COOPERATION RECOGNIZES THE MUTUALITY OF INTERESTS IMPLICIT IN ANY SUCCESSFUL SHARING OF KNOWLEDGE AND KNOW-HOW.

WE BELIEVE IT WOULD BE HELPFUL TO DEVELOP AMONG DONOR NATIONS A COMMON APPROACH TO THE ISSUE OF TECHNOLOGY COOPERATION. TO DO THIS WE BELIEVE WE NEED TO START BY CONCEPTUALIZING WHAT IS NEEDED IN THE WAY OF COUNTRY STUDIES AND IDENTIFYING CURRENT INTERNATIONAL RESOURCES DEDICATED TO AND/OR AVAILABLE FOR PROMOTING TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE. THIS CABLE

OUTLINES SOME INITIAL U.S. TH[illegible]NG ON THESE SUBJECTS AND REQUESTS POSTS OBTAIN INFORM[illegible]N AND REACTIONS FROM HOST GOVERNMENTS ON HOW WE MIGHT D[illegible]NE A COUNTRY STUDY PROCESS AND INVENTORY CLIMATE CHANGE [illegible]ATED TECHNOLOGY COOPERATION. POSTS ARE REQUE[illegible]D TO PROVIDE RESPONSES TO QUESTIONS POSED IN NON-PAPER [illegible]OW. THERE IS AN ADDITIONAL ACTION REQUEST IN [illegible]ST PARAGRAPH. END SUMMARY

BEGIN FYI FOR POSTS ONLY:

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2. INTER-AGENCY INITIATIVE:

THE DEPARTMENT HAS ESTABLISHE[illegible] A TECHNOLOGY COOPERATION (TC) SUB-GROUP UNDER THE INTE[illegible] AGENCY OES POLICY COORDINATING COMMITTEE WORKIN[illegible] GROUP (PCCWG) ON CLIMATE.

THE PURPOSE OF THE SUB-GROUP, [illegible]MONG OTHER THINGS, IS TO DEVELOP A BETTER UNDERSTANDIN[illegible] OF WHAT ACTIVITIES SHOULD BE INCLUDED IN THE CLIMATE CH[illegible]GE COUNTRY STUDY PROCESS, TO INVENTORY U.S. RESOURCES [illegible] PROGRAMS ADDRESSING RELATED TECHNOLOGY COOPERATI[illegible] AND TO IDENTIFY HOW THESE

EXISTING RESOURCES AND ACTIV[illegible]ES MIGHT BE USED TO SUPPORT A BETTER COORDINATED AND TARG[illegible]ED EFFORT. IF APPROPRIATE, WE WOULD LIKE TO INITIATE INF[illegible]MAL DISCUSSIONS WITH OTHER INTERESTED INDUSTRIALIZED COU[illegible]RY REPS ON APPROACHES TO TECHNOLOGY COOPERATION ISSUES [illegible] THIS MIGHT BE DONE ON THE MARGINS OF THE NEXT SESSION O[illegible] THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE (INC) [illegible] CLIMATE CHANGE, WHICH WILL TAKE PLACE IN GENEVA, JUNE 1[illegible]29. WE BELIEVE POSTS CAN MAKE AN IMPORTANT CONTRIBUTION TO THE DEVELOPMENT OF THIS COORDINATION INITIATIVE.

END FYI FOR POST ONLY

BEGIN NON-PAPER

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1. TOWARD A COMMON APPROACH TO PROMOTE TECHNOLOGY COOPERATION
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1. WE BELIEVE IT WOULD BE HELPFUL TO SHARE WITH SELECTED COUNTRIES SOME OF OUR INITIAL THINKING ON THE ISSUE OF TECHNOLOGY COOPERATION IN HOPE THAT THEY MIGHT SHARE SIMILAR INFORMATION AND THINKING WITH US. WE BELIEVE THAT THE EVOLUTION OF A COMMON APPROACH TO THE QUESTION OF TECHNOLOGY COOPERATION AS IT RELATES TO CLIMATE CHANGE WOULD HELP MOVE FORWARD NEGOTIATIONS ON THIS ISSUE, AND WE STAND READY TO WORK WITH COLLEAGUES TO THIS END.

2. WE USE THE TERM TECHNOLOGY COOPERATION RATHER THAN TECHNOLOGY TRANSFER BECAUSE WE BELIEVE THE LATTER TERM

DEFINES THE TECHNOLOGY ISSUE TOO NARROWLY. TECHNOLOGY TRANSFER SUGGESTS A LIMITED, ONE WAY ACTION THROUGH WHICH ONE GIVES AND ANOTHER RECEIVES. BUT THE ISSUE IS MUCH BROADER. THE TERM TECHNOLOGY COOPERATION SEEMS TO DESCRIBE MORE ACCURATELY THE PROCESS BY WHICH TWO OR MORE PARTIES IDENTIFY INDIVIDUAL AND COMMON INTERESTS TO SHARE INFORMATION, KNOWLEDGE, KNOW-HOW, EQUIPMENT, TECHNICAL PROCESSES, AND MANAGEMENT SKILLS. TECHNOLOGY COOPERATION RECOGNIZES THE DYNAMIC PROCESS AND MUTUALITY OF INTERESTS IMPLICIT IN ANY SUCCESSFUL SHARING OF KNOWLEDGE AND KNOW-HOW.

3. BELOW WE OUTLINE SOME INITIAL U.S. THINKING ON THE SUBJECT OF TECHNOLOGY COOPERATION IN THE HOPE OF

STIMULATING FURTHER THINKING, INFORMATION GATHERING, AND DISCUSSION ON THIS IMPORTANT ISSUE. IF INTEREST WARRANTS, THE U.S. WOULD BE PREPARED TO MEET INFORMALLY ON THE MARGINS OF THE JUNE INC WITH INTERESTED COUNTRIES TO DISCUSS HOW EFFORTS AND RESOURCES CURRENTLY DEDICATED TO CLIMATE CHANGE TECHNOLOGY COOPERATION MIGHT BE BETTER COORDINATED. IF AGREED, WE MIGHT DISCUSS HOW THE COUNTRY STUDY APPROACH FOR CLIMATE CHANGE WILL NEED TO DIFFER FROM PREVIOUS EXPERIENCE, WHAT WILL BE REQUIRED IN THE CLIMATE CHANGE CONTEXT, WHICH DEVELOPING COUNTRIES MIGHT BE BEST SUITED TO HELP DEVELOP A MODEL APPROACH, AND WHAT FINANCIAL ASSISTANCE WITHIN EXISTING RESOURCES MIGHT BE AVAILABLE TO UNDERWRITE SUCH PILOT WORK. HAVING BEGUN AN INVENTORY OF U.S. RESOURCES DEDICATED TO CLIMATE CHANGE TECHNOLOGY COOPERATION, WE WOULD LIKE TO DISCUSS THE UTILITY OF THIS CONCEPT WITH OTHER COUNTRIES AND INVITE THEM TO HELP DEVELOP AN INTERNATIONAL INVENTORY.

II. PRIORITIES

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1. U.S. DISCUSSION ON TECHNOLOGY COOPERATION HAS THUS FAR FOCUSED ON FOUR PRIORITIES:

1) THE NEED TO CLARIFY AND DEFINE A COUNTRY STUDY PROCESS; 2) THE NEED TO INVENTORY EXISTING TECHNOLOGY COOPERATION PROGRAMS AND RESOURCES AT HOME AND ABROAD; 3) THE NEED TO IDENTIFY HOW EXISTING RESOURCES DEVOTED TO TECHNOLOGY COOPERATION MIGHT BE BETTER COORDINATED AND UTILIZED; AND 4) THE NEED TO IDENTIFY RESOURCES AND/OR SERVICES THAT MIGHT BE NEEDED FROM EXISTING RESOURCES.

III. COUNTRY CASE STUDIES: THE NEED FOR A PROCESS

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1. WE BELIEVE THAT THE FIRST STEP IN ANY TECHNOLOGY COOPERATION INITIATIVE IS TO ESTABLISH WHAT KIND OF COOPERATION, INCLUDING TECHNOLOGY TRANSFER NEEDS, IS REQUIRED. IMPLEMENTATION OF AN EXPANDED, MULTIFACETED COUNTRY STUDY PROCESS CAN BE OF SIGNIFICANT HELP IN THIS REGARD. FIRST, THE STUDIES THEMSELVES ARE A FORM OF "TECHNOLOGY", TRANSFERRING DATA, EXPERTISE AND ANALYTICAL CAPABILITIES TO THE HOST COUNTRIES. THIS WILL ALLOW THEM TO CARRY OUT IMPROVED ANALYSES OF THEIR OWN OPTIONS AND NEEDS IN THE FUTURE. SECONDLY, THE COUNTRY STUDIES WILL DEVELOP A CLEAR, CONSISTENT AND CREDIBLE BASIS FOR

ESTABLISHING TECHNOLOGY IMPLEMENTATION GOALS, OR ACTION PLANS, AND DEFINING THE POLICY, LOCAL IMPLEMENTATION AND INTERNATIONAL COOPERATION WHICH ARE REQUIRED TO ACHIEVE THESE GOALS.

2. WE BELIEVE THAT THE COUNTRY STUDY PROCESS MAY NEED TO BE QUITE DETAILED AND MAY USEFULLY BE BROKEN DOWN INTO THREE MAJOR COMPONENTS: COMPREHENSIVE INVENTORIES OF NET EMISSIONS TAKING A SECTORAL APPROACH; BROAD RESPONSE STRATEGY ANALYSES; AND DETAILED ASSESSMENTS OF IMPLEMENTATION NEEDS FOR SELECTED STRATEGIES:

-- EMISSIONS INVENTORIES ARE RELATIVELY STRAIGHTFORWARD, BUT PROVIDE AN ESSENTIAL BASIS FOR EVALUATING A RANGE OF SCENARIOS OF FUTURE EMISSIONS AND STRATEGIES FOR RESPONSE.

-- RESPONSE STRATEGY ANALYSES NEED TO EVALUATE ON A CONSISTENT BASIS A WIDE RANGE OF POSSIBLE TECHNOLOGY AND POLICY ACTIONS ACROSS DIFFERENT GASES AND SECTORS. THIS ANALYSIS SHOULD PROVIDE A FRAMEWORK FOR DEVELOPING AND

EASTERN EUROPEAN COUNTRIES TO MAKE JUDGEMENTS CONCERNING THE MOST COST EFFECTIVE AND FEASIBLE OPTIONS FOR REDUCING EMISSIONS.

-- IMPLEMENTATION NEEDS ASSESSMENTS WOULD CARRY OUT A DETAILED ASSESSMENT OF WHAT IS REQUIRED TO IMPLEMENT COMPONENTS OF A DESIRED STRATEGY. THESE ASSESSMENTS WOULD FORM THE BASIS OF AN ACTION PLAN. THEY WOULD CLEARLY INCLUDE NEEDED POLICY CHANGES, TECHNOLOGY, TRAINING, TECHNICAL ASSISTANCE, AND OTHER REQUIREMENTS RELATED TO IMPLEMENTATION. THEY MIGHT ALSO IDENTIFY TECHNOLOGY

COOPERATION RESOURCES WHICH COULD BE USEFUL IN IMPLEMENTING A DESIRED STRATEGY.

3. ECONOMIC FEASIBILITY AND COST/BENEFIT FACTORS WOULD BE IMPORTANT CONSIDERATIONS OF BOTH THE STRATEGY ANALYSES AND IMPLEMENTATION NEEDS ASSESSMENTS. THE STRATEGY AND NEEDS ASSESSMENT WOULD PROVIDE INFORMATION ESSENTIAL TO THE DEVELOPMENT OF A NATIONAL ACTION PLAN, AS WELL AS HELP BEGIN TO ASSESS THE RANGE OF POTENTIAL COSTS ASSOCIATED WITH THE ACTION PLAN.

4. THE CONCEPT OF COUNTRY STUDIES FOR EASTERN EUROPEAN AND DEVELOPING COUNTRIES HAS RECEIVED STRONG SUPPORT IN RECENT MEETINGS OF THE INC AND THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), BUT THE CONCEPT REMAINS ILL-DEFINED. SUCH STUDIES PROVED EXTREMELY USEFUL IN THE MONTREAL PROTOCOL PROCESS, AND IT IS ASSUMED THAT AN EXPANDED COUNTRY STUDY APPROACH COULD PLAY AN IMPORTANT ROLE IN THE CLIMATE CHANGE CONTEXT. HOWEVER, THE CONCEPT OF A SINGLE STUDY PER COUNTRY MAY NEED TO BE REPLACED BY THE CONCEPT OF A COUNTRY STUDY PROCESS COMPOSED OF SEVERAL PHASES AIMED AT THE DEVELOPMENT OF NATIONAL ACTION PLANS.

5. LESSONS LEARNED FROM THE MONTREAL PROTOCOL PROCESS:

5A. UNDER THE MONTREAL PROCESS, INDUSTRIALIZED COUNTRIES VOLUNTEERED TO ASSIST ONE OR MORE DEVELOPING COUNTRIES IN ASSESSING THEIR TECHNOLOGY NEEDS AND ASSOCIATED INCREMENTAL COSTS. A WORKSHOP OF PARTICIPATING COUNTRIES SPONSORED BY EPA HELPED ESTABLISH A CONSISTENT APPROACH TO THE STUDIES. THESE STUDIES DEMONSTRATED THAT THE

INCREMENTAL COSTS TO DEVELOPING COUNTRIES OF USING CFC SUBSTITUTES WERE MUCH LESS THAN FIRST IMAGINED.

5B. IN GENERAL, THE MOST SUCCESSFUL COUNTRY STUDIES WERE THOSE IN WHICH THE TARGET COUNTRIES DESIGNED AND CONDUCTED THE STUDIES WITH THE HELP OF SPONSOR COUNTRY STAFF AND/OR CONSULTANTS. THE FIRST STUDIES COMPLETED HELPED INFORM NEGOTIATORS WHEN THEY TURNED TO THE ISSUE OF FINANCIAL ASSISTANCE. UPON COMPLETING THIS STUDY, FOLLOW-UP SEMINARS TO PROVIDE INFORMATION AND OPERATIONAL TRAINING PROVED NECESSARY AND USEFUL. FINALLY, THE MONTREAL COUNTRY STUDIES HELPED ENGAGE THE PRIVATE SECTOR BY ENCOURAGING DIRECT CONTACTS BETWEEN PRIVATE (COMMERCIAL) INTERESTS IN THE HOST AND SPONSOR COUNTRIES FOR DEVISING SOLUTIONS TO SPECIFIC HOST COUNTRY PROBLEMS. THIS LAST ELEMENT HAS LED TO THE IDENTIFICATION OF MANY SPECIFIC FIXES, MANY AT LOW OR NO COST.

5C. THE U.S. ACTED AS THE SPONSOR NATION FOR EGYPT, MEXICO AND BRAZIL. OTHER FIRST YEAR STUDIES WERE KENYA (SWEDEN), VENEZUELA (NO SPONSOR), CHINA (UNDP WITH NORWAY), AND INDIA (U.K.). SUBSEQUENT COUNTRY STUDIES ARE BEING CARRIED OUT IN ARGENTINA, CHILE, ECUADOR, GHANA, MALAYSIA, NIGERIA, THAILAND, TRINIDAD AND TOBAGO, TUNISIA, INDONESIA, AND THE PHILIPPINES.

6. A COUNTRY STUDY PROCESS FOR CLIMATE CHANGE:

6A. WE SHOULD BUILD ON THE MONTREAL PROTOCOL COUNTRY STUDIES EXPERIENCE, ALTHOUGH WE WILL NEED TO BROADEN THE PROCESS TO ACCOMMODATE THE GREATER COMPLEXITY OF THE

CLIMATE CHANGE ISSUE. FOR CLIMATE CHANGE WE NEED TO SEEK AGREEMENT ABOUT WHAT INFORMATION IS NEEDED AND HOW IT CAN BEST BE OBTAINED. IT WILL BE ESSENTIAL TO HAVE A COMMON APPROACH (ALTHOUGH THE PARTICULAR STUDIES MAY DIFFER ACCORDING TO COUNTRY SPECIFIC CONDITIONS) AND TO MARSHALL AND COORDINATE EXISTING RESOURCES TO SERVE THIS PROCESS. DEVELOPING AN ORDERLY, IF NOT ALWAYS UNIFORM, APPROACH TO THE COUNTRY STUDY QUESTION SHOULD HELP MEMBERS OF THE INTERNATIONAL COMMUNITY AVOID REDUNDANT OR INEFFICIENT ACTION.

6B. IN ORDER TO EFFECTIVELY ASSESS IMPLEMENTATION NEEDS -- SUCH AS TECHNOLOGY, TECHNICAL ASSISTANCE AND POLICY REQUIREMENTS , COUNTRIES WILL FIRST NEED TO INVENTORY THEIR NET GREENHOUSE GAS EMISSIONS TO GAIN SOME IDEA OF WHICH SECTORS OF THE ECONOMY MIGHT HOLD THE GREATEST POTENTIAL FOR COST EFFECTIVE ACTION. ANALYSES OF POTENTIAL RESPONSE STRATEGIES FOR NET EMISSIONS REDUCTIONS AND ADAPTIVE MEASURES IN THE AREA OF AGRICULTURE, FORESTRY AND SEA-LEVEL RISE, WILL FURTHER STRENGTHEN A COUNTRY'S ABILITY TO ASSESS ITS TECHNOLOGY, TECHNICAL ASSISTANCE, AND POLICY NEEDS. ONCE THESE NEEDS ARE IDENTIFIED, POLICY MAKERS WILL BE ABLE TO SET NATIONAL PRIORITIES THROUGH THE DEVELOPMENT OF NATIONAL ACTION PLANS.

7. NET EMISSIONS INVENTORIES: THE FOUNDATION FOR NEEDS ASSESSMENTS

7A. THE OECD, IN SUPPORT OF THE IPCC, IS DEVELOPING A STANDARD METHODOLOGY FOR CONDUCTING NATIONAL NET GREENHOUSE GAS EMISSIONS INVENTORIES. THIS METHODOLOGY

WILL ASSESS NET EMISSIONS FROM VARIOUS SECTORS: ENERGY, INDUSTRY, AGRICULTURE, FORESTS AND LAND USE. TO THIS END, OVER 100 EXPERTS FROM 44 COUNTRIES, INCLUDING 28 NON-OECD COUNTRIES, MET FEBRUARY 18-21 IN PARIS. DURING THAT MEETING, IT WAS NOTED THAT A NUMBER OF THE ATTENDING COUNTRIES, INCLUDING ARGENTINA, BURKINA FASO, CONGO, COSTA RICA, GAMBIA, MEXICO, NIGERIA, SENEGAL, TANZANIA AND VENEZUELA, WOULD BENEFIT FROM TECHNICAL ASSISTANCE IN BUILDING NET EMISSIONS INVENTORIES.

7B. THE FIFTH PLENARY OF THE IPCC SUBSEQUENTLY ENDORSED A WORK PLAN TO DEVELOP A FIRST DRAFT "GUIDELINE" FOR NATIONAL EMISSIONS INVENTORIES BY MID-1992 USING, AS ONE INPUT, COUNTRY-BY-COUNTRY ANALYSES. THIS INITIATIVE COULD PROVE VALUABLE IN ESTABLISHING AN AGREED UPON FIRST STEP IN THE COUNTRY STUDY PROCESS. EPA HAS PROPOSED A STUDY WITH BRAZIL THAT WILL FOCUS ON DEVELOPING A COMPREHENSIVE AND DETAILED INVENTORY OF NET GREENHOUSE GAS EMISSIONS, USING THE OECD METHODOLOGY AS A TEST OF THE METHODOLOGY AND A MODEL FOR OTHER DEVELOPING COUNTRIES. OTHER BILATERAL PROJECTS MAY BE INITIATED IN FY 92.

8. OTHER IPCC ACTIVITIES

8A. TO COMPLEMENT THE NET EMISSIONS INVENTORY, THE IPCC IS ALSO DEVELOPING AN INVENTORY OF TECHNOLOGICAL RESPONSE OPTIONS. BUILDING ON AN EARLIER ASSESSMENT BY THE WORKING GROUP III ENERGY AND INDUSTRY SUBGROUP (EIS) ON APPROPRIATE ENERGY AND INDUSTRY SECTOR TECHNOLOGIES, THE FIFTH IPCC PLENARY CALLED FOR STANDARDIZED STUDIES TO FOCUS ON THE ECONOMIC AND MARKET FEASIBILITY OF SUCH

MITIGATION TECHNOLOGIES. THE MANNER IN WHICH THESE EIS STUDIES WILL BE CONDUCTED WILL BE DISCUSSED IN MORE DETAIL DURING THE AUGUST 5-8 WGIII MEETING IN GENEVA.

8B. DEVELOPING A UNIFORM APPROACH TO ASSESSING THE APPLICABILITY AND FINANCIAL FEASIBILITY OF ON-THE-SHELF-TECHNOLOGY WILL ENABLE COUNTRIES TO EXPEDITE NATIONAL STUDIES DESIGNED TO IDENTIFY A COST EFFECTIVE RESPONSE STRATEGY. THE NEWLY MANDATED EIS STUDIES SHOULD BE DEVELOPED IN SUCH A WAY AS TO FEED INTO MORE COUNTRY SPECIFIC NEEDS ASSESSMENTS.

8C. MINDFUL OF THE NEED TO IDENTIFY OPPORTUNITIES FOR ADAPTATION AS WELL AS MITIGATION RESPONSES, THE IPCC FIFTH PLENARY ALSO ASKED THE AGRICULTURE AND FORESTRY SUBGROUP OF WORKING GROUP III (A) TO ASSESS AND EVALUATE MANAGEMENT PRACTICES AND SYSTEMS; (B) TO ASSESS AND EVALUATE ADAPTATION MEASURES; AND (C) EVALUATE SOCIO-ECONOMIC IMPACTS OF MITIGATION, ADAPTATION AND NON-ACTION RESPONSES TO CLIMATE CHANGE. THE INFORMATION GATHERED THROUGH THESE EVALUATIONS WILL HELP EXPAND THE FOUNDATION ON WHICH NATIONAL STRATEGIES AND NEEDS ASSESSMENTS CAN BE DEVELOPED. A NUMBER OF REGIONAL AND INTERNATIONAL WORKSHOPS ARE PLANNED TO CONDUCT THIS WORK - THE FIRST TOOK PLACE AT THE END OF APRIL IN BANGKOK.

8D. THE IPCC WORKING GROUP III COASTAL ZONE MANAGEMENT SUBGROUP HAS PROPOSED AN AMBITIOUS AGENDA, IN COOPERATION WITH THE UNEP REGIONAL SEAS PROGRAM, OF CONDUCTING COUNTRY CASE STUDIES TO ASSESS VULNERABILITY TO SEA-LEVEL RISE, AS WELL AS DEVELOP MODEL COMPREHENSIVE NATIONAL COASTAL

MANAGEMENT PLANS. ARGENTINA, BANGLADESH, GAMBIA, KIRIBATI, NICARAGUA AND VENEZUELA EXPRESSED A STRONG INTEREST IN BEING THE SUBJECTS OF SUCH STUDIES. OTHER COASTAL STATES HAVE ALSO EXPRESSED INTEREST IN CASE STUDIES. THE U.S. IS CURRENTLY WORKING WITH 10 COUNTRIES ON SUCH STUDIES. THE COMMON METHODOLOGY USED FOR THESE STUDIES, AND THE RESULTS THAT COME FROM THE STUDIES, WILL SUBSEQUENTLY BE PRESENTED IN THREE INTERNATIONAL WORKSHOPS - ONE IN THE CARIBBEAN WHICH VENEZUELA HAS OFFERED TO HOST, ONE IN THE SOUTH PACIFIC AND ONE IN A HEAVILY POPULATED DELTAIC AREA. CONSIDERATION SHOULD BE GIVEN TO HOW THIS WORK MIGHT BE COORDINATED SO AS TO CONTRIBUTE TO THE DEVELOPMENT OF COUNTRY SPECIFIC TECHNOLOGY AND TECHNICAL ASSISTANCE NEEDS.

9. RESPONSE STRATEGIES AND NEEDS ASSESSMENTS:

9A. THE HEART OF THE COUNTRY STUDY PROCESS SHOULD BE THE IDENTIFICATION BY SECTOR OF TECHNOLOGY NEEDS AND RELATED TECHNICAL ASSISTANCE, TRAINING, AND POLICY MEASURES NEEDED TO SUPPORT THE ACQUISITION OF SUCH TECHNOLOGY. SUCH ASSESSMENTS, HOWEVER, SHOULD BE DONE IN THE CONTEXT OF COUNTRY SPECIFIC RESPONSE STRATEGIES FOCUSSED ON THE MOST PROMISING SECTORS FOR ACTION. THE DEVELOPMENT OF SUCH STRATEGIES WILL NEED TO TAKE INTO ACCOUNT THE RELATIVE IMPORTANCE OF DIFFERENT GREENHOUSE GASES AND THEIR MULTI-SECTORAL SOURCES AND SINKS. IN SOME CASES, COUNTRIES MAY FIND IT PRUDENT TO ADDRESS SEVERAL SECTORS AT ONCE; IN OTHER CASES, IT MAY MAKE MORE SENSE TO FOCUS ON ONLY ONE. THE CHOICE AMONG PROJECTS/STRATEGIES WILL DEPEND ON THE NET EMISSIONS BENEFIT AND COST EFFECTIVENESS

THEY MAY PRODUCE.

9B. AS A FIRST STEP, AT THE MARCH IPCC V PLENARY, THE U.S. DELEGATION EXPLORED THE POSSIBILITIES OF INITIATING A FEW COUNTRY STUDIES QUICKLY TO START GAINING FIELD EXPERIENCE FOR METHODOLOGICAL PURPOSES. AFTER DISCUSSIONS WITH OTHER

INTERESTED AGENCIES, THE U.S. EPA RECENTLY WROTE TO THE MINISTER OF ENVIRONMENT, FORESTRY AND NATURAL RESOURCES IN POLAND TO PROPOSE A MITIGATION STRATEGY STUDY FOR THAT COUNTRY; A SIMILAR PROPOSAL IS BEING MADE TO THE GOVERNMENT OF MEXICO. THE POLISH AND MEXICAN PROPOSALS WILL SEEK TO INTEGRATE A RANGE OF NET EMISSION REDUCTION OPTIONS FOR KEY SECTORS AND GASES AND MORE COMPLETELY ADDRESS ECONOMIC ISSUES IN A DEVELOPING OR EASTERN EUROPEAN COUNTRY CONTEXT.

9C. THESE EPA COUNTRY CASE STUDIES WILL DIFFER FROM PRIOR COUNTRY STUDIES IN THREE WAYS:

--THEY WILL BE INITIATED THROUGH FORMAL GOVERNMENT TO GOVERNMENT CONTACT AND SHOULD ULTIMATELY RESULT IN OFFICIAL COUNTRY STUDIES MADE AVAILABLE TO OTHER COUNTRIES VIA SUBMISSION TO THE IPCC.

--THEY WILL DEVELOP A BASIS FOR ANALYSIS OF A "COMPREHENSIVE STRATEGY" INCLUDING ALL MAJOR GASES AND SOURCE AND SINK CATEGORIES COMPARABLE TO ANALYSES UNDERWAY IN THE U.S.

--THEY WILL USE MORE DETAILED AND SOPHISTICATED ANALYTIC APPROACHES. IN PARTICULAR, ECONOMIC ANALYSIS WOULD FOCUS

ON MARGINAL COSTS OF POLICY OPTIONS RELATIVE TO OTHER LIKELY SCENARIOS AND WOULD INVOLVE A BROAD SET OF MODELS AND COSTING APPROACHES.

9D. WE BELIEVE THESE AND OTHER STUDIES CARRIED OUT OVER THE COMING MONTHS MAY HELP US DEVELOP A BETTER IDEA OF WHAT WILL BE NEEDED TO ASSIST ALL COUNTRIES IN DEVELOPING STRATEGIES FOR RESPONDING TO CLIMATE CHANGE CONCERNS. WE WOULD BE INTERESTED TO KNOW WHETHER YOUR COUNTRY IS UNDERTAKING CLIMATE CHANGE RELATED CASE STUDIES WITH DEVELOPING COUNTRIES. WE BELIEVE IT WOULD BE USEFUL TO COORDINATE ACTIVITIES IN THIS REGARD. WE ALSO BELIEVE IT WOULD BE USEFUL TO DISCUSS HOW STRATEGY STUDIES MIGHT BE FOLLOWED UP WITH NEEDS ASSESSMENTS TO IDENTIFY THE TECHNOLOGY, TECHNICAL ASSISTANCE, TRAINING, AND POLICY MEASURES NEEDED TO IMPLEMENT THE STRATEGY.

10. ROLE OF THE GLOBAL ENVIRONMENT FACILITY (GEF)

10A. INTERNATIONAL ORGANIZATIONS AND FINANCIAL INSTITUTIONS ARE ALSO PREPARING TO CONDUCT STUDIES COUNTRY BY COUNTRY. WE NEED TO CLARIFY THEIR ROLE IN THIS AREA SO THAT IT CAN BE TAKEN INTO ACCOUNT AS WE FURTHER DEVELOP THINKING ON HOW A COUNTRY STUDY PROCESS COULD BE DEFINED.

10B. THE GLOBAL ENVIRONMENTAL FACILITY (GEF) IS A NEWLY-ESTABLISHED PILOT PROGRAM, JOINTLY IMPLEMENTED BY THE WORLD BANK, UNEP AND UNDP, UNDER WHICH GRANTS OR CONCESSIONAL LOANS WILL BE PROVIDED TO DEVELOPING COUNTRIES TO ASSIST THEM IN IMPLEMENTING PROGRAMS THAT HELP PROTECT THE GLOBAL ENVIRONMENT. THE GEF SCIENTIFIC

AND TECHNICAL ADVISORY PANEL IS CURRENTLY WORKING TO ESTABLISH GUIDELINES AND PRIORITIES FOR WHAT TYPE OF PROJECTS WILL BEST ACHIEVE THE FOUR GEF GOALS OF : PROTECTION OF THE OZONE LAYER (SUPPORTED PRIMARILY THROUGH THE MONTREAL PROTOCOL OZONE PROJECTS TRUST FUND); LIMITING EMISSIONS OF GREENHOUSE GASES; PROTECTING OF BIODIVERSITY; AND PROTECTING OF INTERNATIONAL WATERS AT A MAY 1-2 MEETING WITH GEF PARTICIPANTS, THE SCIENTIFIC AND TECHNICAL ADVISORY PANEL (STAP) CHAIRMAN PROPOSED THAT THE GEF SHOULD HAVE A TARGETED RESEARCH COMPONENT THAT WOULD FACILITATE CURRENT OR FUTURE TECHNICAL ASSISTANCE OR INVESTMENT PROJECTS IN AREAS SUCH AS BIODIVERSITY AND

CLIMATE CHANGE. WE NEED TO ENCOURAGE THE EARLIEST AND MOST SUBSTANTIAL INVOLVEMENT OF THE STAP IN THE PROCESS OF DEVELOPING A COMMON METHODOLOGY FOR PERFORMING COUNTRY STUDIES.

10C. WHILE THE STAP CRITERIA AND GUIDELINES WILL NOT BE CIRCULATED TO GEF PARTICIPANTS FOR COMMENT UNTIL JULY, THE FIRST TRANCHE OF GEF PROPOSED PROJECTS INCLUDES A USD 2 MILLION GRANT FOR LIMITING EMISSIONS OF GREENHOUSE GASES IN CHINA. IF APPROVED, THE GRANT WOULD PROVIDE FUNDS FOR: ASSESSMENT OF GREENHOUSE GAS NET EMISSIONS AND FORMULATION OF A REDUCTION PLAN; IMPROVING THE QUALITY AND REDUCING THE OVERALL EMISSIONS OF SUPPLIED COAL; AND IMPROVING THE EFFICIENCY OF INDUSTRIAL BOILERS. SHOULD SUCH PROJECTS MEET THE CRITERIA AND PRIORITIES ESTABLISHED BY THE STAP AND APPROVED BY THE GEF PARTICIPANTS, THE GEF COULD PROVIDE FINANCIAL RESOURCES FOR EMISSIONS, TECHNOLOGY AND NEEDS ASSESSMENT, AND FOR FORMULATION OF A RESPONSE STRATEGY.

IV. TECHNOLOGY COOPERATION INVENTORY: IS ONE NEEDED?

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1. IN DISCUSSING HOW WE MIGHT FORGE A COUNTRY STUDY PROCESS TO HELP ASSESS TECHNOLOGY COOPERATION NEEDS, WE HAVE BECOME AWARE OF THE CONCURRENT NEED TO INVENTORY CURRENT RESOURCES DEDICATED TO MEETING THESE NEEDS AND DETERMINE HOW THESE RESOURCES CAN BE BETTER UTILIZED. SUCH AN INVENTORY COULD BE HELPFUL IN TWO RESPECTS: 1) IT WOULD ENABLE US TO STRENGTHEN EXISTING INSTITUTIONS AND RESOURCES AND AVOID REDUNDANCY AND WASTE, AND 2) IT WOULD HELP IDENTIFY BILATERAL AND MULTILATERAL PROGRAMS AND MECHANISMS TO BE INCLUDED IN ANY TECHNOLOGY COOPERATION DATABASE THAT MIGHT BE DEVELOPED.

V. INVENTORY OF THE U.S. PUBLIC AND PRIVATE SECTORS

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1. TO GET AN IDEA OF EXISTING PUBLIC SECTOR SUPPORT FOR BILATERAL CLIMATE CHANGE ACTIVITIES, WE INVENTORIED RELEVANT ACTIVITIES BEING CARRIED OUT BY NINE FEDERAL AGENCIES OR DEPARTMENTS WITH FIFTEEN DEVELOPING AND EASTERN EUROPEAN COUNTRIES. FUNDED ACTIVITIES RANGE FROM SUPPORT FOR MONITORING PROJECTS TO CASE STUDIES, FORESTRY PROJECTS, AND ENERGY EFFICIENCY TECHNOLOGY PROGRAMS. WE FOUND THAT THREE QUARTERS OF THESE ACTIVITIES ARE DEVOTED TO CLIMATE CHANGE TECHNOLOGY COOPERATION. WE HOPE TO REFINE THIS INVENTORY IN ORDER TO IDENTIFY THOSE

ACTIVITIES WHICH COULD CONTRIBUTE MOST TO A GLOBAL TECHNOLOGY COOPERATION RESPONSE. BY ITSELF, HOWEVER, THE INVENTORY DEMONSTRATES THE IMPORTANCE OF BILATERAL PUBLIC SECTOR TECHNOLOGY COOPERATION.

2. WE WOULD BE INTERESTED IN LEARNING OF OTHER COUNTRIES' ACTIVITIES AND PROGRAMS, ESPECIALLY IN THE AREA OF DEVELOPMENT ASSISTANCE AND ENVIRONMENT.

3. U.S. AID IS PARTICULARLY INTERESTED IN GLOBAL ENERGY EFFICIENCY. IT IS FOCUSSING ON TRAINING AND INFORMATION, CAPITAL AVAILABILITY, AND COUNTRY IMPLEMENTATION PROGRAMS. ONE IDEA IS TO ENGAGE THE U.S. PRIVATE SECTOR, THROUGH THE ELECTRIC POWER RESEARCH INSTITUTE (EPRI), AND UTILITIES IN WESTERN EUROPE, JAPAN, CANADA, INDIA, CHINA, AND BRAZIL IN THE DEVELOPMENT OF AN INTERNATIONAL ELECTRIC UTILITY NETWORK TO SPONSOR COLLABORATIVE RESEARCH AND TECHNOLOGY DEVELOPMENT

4. IN FORESTRY, AID HAS EXPANDED PROGRAMS OF POLICY RESEARCH, TRAINING AND INSTITUTION STRENGTHENING FOCUSED ON TROPICAL DEFORESTATION RESEARCH AND IN-COUNTRY TROPICAL FOREST ASSISTANCE PROGRAMS. FOREST PROJECTS ARE BEING CONSIDERED IN KEY COUNTRIES INCLUDING PHILIPPINES, INDONESIA, BRAZIL, MEXICO, AND ZAIRE. OTHER POSSIBILITIES BEING EXPLORED IN AGRICULTURE INCLUDE INTERNATIONAL COLLABORATIVE PROGRAMS FOR MONITORING GREENHOUSE GAS EMISSIONS AND SOIL ORGANIC CARBON STOCKS.

5. EPA ALSO PLAYS AN IMPORTANT BILATERAL ROLE. IN ADDITION TO INITIATING WORK ON COUNTRY CASE STUDIES

RELATED TO CLIMATE CHANGE, EPA OPERATES A NUMBER OF TECHNICAL ASSISTANCE PROGRAMS AND INFORMATION CLEARINGHOUSES AND DATABASES RELATED TO CLIMATE CHANGE. FOR EXAMPLE, IN ADDITION TO COUNTRY STUDIES, EPA, IN COOPERATION WITH AID AND THE DEPARTMENT OF ENERGY (DOE), IS BUILDING A COMPUTERIZED INFORMATION SYSTEM CALLED ENVIROTECH. THIS SYSTEM WILL PROVIDE DOMESTIC AND INTERNATIONAL USERS WITH INFORMATION ON MAJOR TECHNOLOGIES, INCLUDING ENERGY EFFICIENCY AND RENEWABLE ENERGY TECHNOLOGIES. THE DEPARTMENT OF COMMERCE (DOC) HAS OPERATIONAL TECHNICAL CAPABILITY AND DATABASES FOR EASTERN EUROPE AND THE PERSIAN GULF REGION THAT COULD BE LINKED WITH EPA'S SYSTEM.

6. DOE PARTICIPATES IN A BROAD RANGE OF COOPERATIVE EFFORTS WITH OTHER COUNTRIES IN THE AREAS OF TECHNOLOGY ASSISTANCE AND TECHNOLOGY RESEARCH AND DEVELOPMENT. OVER 100 SUCH AGREEMENTS ARE NOW IN PLACE. DOE ALSO MANAGES THE COMMITTEE ON RENEWABLE ENERGY, COMMERCE AND TRADE (CORECT) WHICH PUBLISHES AND WIDELY DISSEMINATES TO DEVELOPING COUNTRIES INFORMATION ON RENEWABLE TECHNOLOGY OPTIONS, COSTS AND TECHNOLOGY AND SERVICES. NEW INITIATIVES ARE UNDERWAY WITH EASTERN EUROPEAN COUNTRIES WHICH HAVE A DIRECT BEARING ON CLIMATE CHANGE. FOR INSTANCE, A 10 MILLION PROJECT IS UNDERWAY IN POLAND TO RETROFIT A COAL-FIRED POWERPLANT NEAR KRAKOW. ENERGY EFFICIENCY, RENEWABLE ENERGY, NUCLEAR SAFETY AND OTHER PROGRAMS WILL BE UNDERTAKEN WITH A VARIETY OF EASTERN EUROPEAN COUNTRIES.

7. WE BELIEVE IT MAY ALSO BE IMPORTANT TO ENCOURAGE

DEVELOPMENT OF AN INVENTORY OF PRIVATE SECTOR RESOURCES, GIVEN THE PRIVATE SECTOR'S PRIMARY ROLE IN DEVELOPING AND COMMERCIALIZING CLIMATE-RELATED TECHNOLOGIES AND IN PROVIDING NECESSARY TECHNICAL ASSISTANCE, TRAINING, AND KNOW-HOW. WE BELIEVE IT WOULD BE HELPFUL TO HAVE A CLEARER IDEA OF HOW THE PRIVATE SECTOR IN INDUSTRIALIZED COUNTRIES IS CONTRIBUTING TO TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE.

8. FOR EXAMPLE, THIRTEEN MAJOR U.S. CORPORATIONS JOINED TO FORM THE INDUSTRY COOPERATIVE FOR OZONE LAYER PROTECTION (ICOLP). ICOLP JUST INITIATED A NEW COMPUTERIZED DATABASE, OZONET, DESIGNED TO HELP INDUSTRIAL USERS OF CFCS FIND SUBSTITUTES FOR OZONE-DEPLETING CHEMICALS. OZONET WILL BE EASILY ACCESSIBLE FROM MORE THAN 750 CITIES IN 35 COUNTRIES.

9. THE GLOBAL ENVIRONMENT MANAGEMENT INITIATIVE (GEMI), A U.S. CENTER FOR CORPORATE LEADERSHIP AND THINKING ON ENVIRONMENTAL MANAGEMENT, REPRESENTS ANOTHER POTENTIAL FOR THE PRIVATE SECTOR TO CONTRIBUTE KNOW-HOW AND EXPERTISE. MEMBERS OF GEMI HAVE PLEDGED FINANCIAL RESOURCES AND THE HUMAN RESOURCES OF THEIR GLOBALLY RECOGNIZED ENVIRONMENTAL MANAGERS AND STAFF TO FOSTER ENVIRONMENTAL EXCELLENCE BY

BUSINESS WORLDWIDE. WORKING WITH UNEP AND THE INTERNATIONAL CHAMBER OF COMMERCE, GEMI WILL SEEK TO SHARE THE EXPERIENCE AND EXPERTISE OF ITS MEMBER CORPORATIONS IN THE AREA OF ENVIRONMENTAL MANAGEMENT AND CREATE PARTNERSHIPS AROUND THE WORLD ENCOURAGING SIMILAR EFFORTS.

10. AS THE COUNTRY STUDY PROCESS DEVELOPS AND CLIMATE CHANGE TECHNOLOGY NEEDS ARE CLARIFIED, NEW MARKET OPPORTUNITIES WILL EMERGE, THUS ENGAGING THE PRIVATE SECTOR TO AN EVER GREATER EXTENT. THE PRIVATE SECTOR IN A NUMBER OF COUNTRIES CAN BE EXPECTED TO RESPOND TO MARKET INCENTIVES FOR PRODUCT DEVELOPMENT. SEVERAL COMPANIES ARE ALREADY WORKING TO POSITION THEMSELVES FOR NEW MARKETS IN THE AREA OF ENVIRONMENTAL TECHNOLOGY, THUS FACILITATING ITS WIDER DISSEMINATION.

VI. INVENTORY: INTERNATIONAL RESOURCES

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1. WE WOULD LIKE TO DEVELOP A CLEARER PICTURE OF INTERNATIONAL RESOURCES DEVOTED TO PROMOTING TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE. IT IS CLEAR FROM AN INITIAL SURVEY THAT A GREAT DEAL OF ACTIVITY IS ALREADY UNDERWAY. WE WOULD LIKE TO ENSURE THAT WE ARE AWARE OF ALL MAJOR INTERNATIONAL PROGRAMS AND EFFORTS, SUCH AS THE OECD'S STUDIES, DIRECTED AT CLIMATE CHANGE TECHNOLOGY COOPERATION.

2. AMONG THE INTERNATIONAL RESOURCES WE HAVE IDENTIFIED SO FAR, IT APPEARS THAT CLEARING HOUSES HAVE GARNERED CONSIDERABLE SUPPORT:

-- UNEP IS DEVELOPING AN INTERNATIONAL CLEANER PRODUCTION CLEARING HOUSE (ICPIC), WHICH WILL BE A COMPUTERIZED INFORMATION EXCHANGE SYSTEM BASED ON THE U.S. EPA'S POLLUTION PREVENTION INFORMATION CLEARING HOUSE. (THIS

PROJECT IS BEING CARRIED OUT UNDER THE AUSPICES OF THE CLEANER PRODUCTION PROGRAMME (CPP) LOCATED IN UNEP'S INDUSTRY AND ENERGY OFFICE (IEO) IN PARIS. THE GOAL OF THE CPP IS TO ESTABLISH A NETWORK WHICH WILL ALLOW TRANSFER OF ENVIRONMENTAL PROTECTION TECHNOLOGY THROUGH THE ICPIC, EXPERT WORKING GROUPS, A NEWSLETTER, AND TRAINING ACTIVITIES.)

-- UNEP ALSO ADMINISTERS A CLEARING HOUSE UNDER THE AUSPICES OF THE MONTREAL PROTOCOL INTERIM MULTILATERAL FUND.

-- THE EUROPEAN COMMISSION SUPPORTS FOR ITS MEMBERS THE NETWORK FOR ENVIRONMENTAL TECHNOLOGY TRANSFER (NETT), WHICH PROVIDES LINKS TO COMMERCIAL COMPANIES AND PRIVATE-LED PUBLIC INSTITUTIONS SPECIALIZING IN ENVIRONMENTAL TECHNOLOGY TRANSFER MATTERS.

-- THE INTERNATIONAL CHAMBER OF COMMERCE IN PARIS IS ENCOURAGING BUSINESS TO SUPPORT TECHNICAL COOPERATION AND SPONSORS THE INTERNATIONAL ENVIRONMENT BUREAU (IEB) IN GENEVA, ANOTHER TECHNOLOGY TRANSFER CLEARING HOUSE.

-- THE INTERNATIONAL ENERGY AGENCY (IEA) HAS PROPOSED DEVELOPING A CLEARING HOUSE BASED ON ITS CENTER FOR THE ANALYSIS AND DISSEMINATION OF DEMONSTRATOR ENERGY TECHNOLOGY (CADDET).

3. WE ARE FAMILIAR WITH JAPAN'S NEW EARTH 21 AND THE CENTER FOR GLOBAL ENVIRONMENTAL TECHNOLOGY IT HAS PROPOSED

TO SPONSOR WITH UNEP, BUT WE DO NOT HAVE A GOOD IDEA OF

WHETHER OTHER OECD COUNTRIES PROPOSE TO TAKE SUCH AN APPROACH TO THE PROBLEM. WE NOTE THAT THE CANADIAN GREEN PLAN INCLUDES SUPPORT FOR DEMONSTRATION PROJECTS, ESTABLISHMENT OF AN INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT, AND PARTICIPATION IN THE BUDAPEST CENTER (REGIONAL ENVIRONMENTAL CENTER FOR CENTRAL AND EASTERN EUROPE), AS WELL AS A MAJOR ENVIRONMENTAL PRODUCTS AND TECHNOLOGY FAIR (GLOBE '92) SIMILAR TO GLOBE '90. THE UK HAS SUPPORTED THE TOUCHE-ROSS TECHNOLOGY TRANSFER STUDY. WE NEED TO IDENTIFY OTHER IMPORTANT BILATERAL INITIATIVES CURRENTLY PROMOTING CLIMATE CHANGE RELATED TECHNOLOGY COOPERATION.

VII. UTILIZING INVENTORIES

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1. BY BEGINNING TO INVENTORY OUR OWN TECHNOLOGY COOPERATION RESOURCES AND FAMILIARIZE OURSELVES WITH THE BILATERAL AND MULTILATERAL EFFORTS OF OTHERS, WE HAVE BECOME AWARE OF THE NEED TO CONSIDER HOW SUCH RESOURCES CAN BE BETTER COORDINATED AND UTILIZED. MORE INFORMATION ABOUT EXISTING RESOURCES IS NEEDED. ONCE THIS INFORMATION HAS BEEN GATHERED, A REPRESENTATIVE GROUP OF DEVELOPED AND DEVELOPING COUNTRIES MIGHT JOIN TOGETHER TO ASSESS HOW CURRENT ACTIVITIES AND PROGRAMS CAN BE BETTER COORDINATED AND UTILIZED. PERHAPS WE COULD IDENTIFY WHAT KIND(S) OF CLEARING HOUSE FUNCTION(S) ARE NEEDED AND HOW SUCH MIGHT BE FURTHER DEVELOPED. INFORMATION GATHERED IN THIS PROCESS COULD ALSO BE USED IN THE UNCED CONTEXT.

IN THE COURSE OF ASSESSING CURRENT RESOURCES, WE WOULD HOPE THAT IT WOULD BE POSSIBLE TO DETERMINE WHAT GAPS, IF ANY, EXIST IN THE INTERNATIONAL TECHNOLOGY COOPERATION INFRASTRUCTURE AND THEREBY BE IN A BETTER POSITION TO PROPOSE APPROPRIATE REDIRECTED BILATERAL AND MULTILATERAL RESPONSES.

VIII. QUESTIONS:

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1. COUNTRY STUDY PROCESS:

IS YOUR GOVERNMENT FUNDING OR CONSIDERING FUNDING COUNTRY STUDIES FOCUSED ON CLIMATE CHANGE TECHNOLOGY COOPERATION WITH ANY DEVELOPING OR EASTERN EUROPEAN COUNTRIES? IF SO, WHAT ARE THE PRIMARY OBJECTIVES OF THE STUDIES AND WHICH MINISTRIES ARE SUPPORTING THEM? WITH WHICH COUNTRIES ARE THEY BEING (WILL THEY BE) CARRIED OUT?

WOULD YOUR GOVERNMENT BE INTERESTED IN PARTICIPATING IN AN INFORMAL MEETING DURING THE JUNE INC SESSION TO DISCUSS HOW EFFORTS MIGHT BE COORDINATED AND HARMONIZED TO BUILD A COUNTRY STUDY PROCESS?

2. ASSESSING TECHNOLOGY COOPERATION NEEDS:

WHAT MAJOR RESOURCES AND/OR PROGRAMS DOES YOUR GOVERNMENT DEDICATE TO TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE? DOES IT HAVE AN INVENTORY OF THESE RESOURCES? HAS YOUR PRIVATE SECTOR TAKEN ANY INITIATIVES IN THIS

AREA? WHAT MAJOR PROGRAMS AND ACTIVITIES RELATED TO CLIMATE CHANGE TECHNOLOGY COOPERATION ARE SUPPORTED BY INTERNATIONAL ORGANIZATIONS IN YOUR COUNTRY? WHAT CLEARING HOUSE OPERATIONS ARE YOU AWARE OF? HOW DO YOU

ASSESS THEIR EFFECTIVENESS?

END OF NON-PAPER

LAST PARA: ACTION ITEMS FOR POSTS ONLY:

POSTS ARE ASKED TO SHARE NON-PAPER PROVIDED ABOVE WITH APPROPRIATE HOST GOVERNMENT OFFICIALS AND REPORT AS QUICKLY AS POSSIBLE ON RESPONSES TO THE QUESTIONS THEREIN. IN ADDITION POSTS ARE ALSO ASKED TO PROVIDE THEIR VIEWS ON THE FOLLOWING ISSUES:

--HAS HOST GOVERNMENT DEVELOPED A POSITION OR STRATEGY FOR DEALING WITH THE ISSUE OF CLIMATE CHANGE TECHNOLOGY COOPERATION? IF SO, PLEASE SUMMARIZE.

--IN POST'S VIEW, HOW AMENABLE WOULD HOST COUNTRY BE TO SEEKING A COMMON APPROACH AMONG INDUSTRIALIZED COUNTRIES TO THE BROAD ISSUE OF TECHNOLOGY COOPERATION RELATED TO CLIMATE CHANGE, BEYOND COORDINATING A COUNTRY STUDY PROCESS RELATED TO CLIMATE CHANGE AND DEVELOPING INVENTORIES?

--IS POST AWARE OF ANY TECH COOPERATION RESOURCES WITHIN THE COUNTRY NOT MENTIONED BY THE HOST GOVERNMENT?

POST SPECIFIC REQUESTS FOLLOW:

FOR USUN: PLEASE ASSESS AS WELL AS IDENTIFY SIGNIFICANT NEW YORK BASED UN AGENCY PROGRAMS AND RESOURCES RELEVANT TO CLIMATE CHANGE TECHNOLOGY COOPERATION.

FOR PARIS: THANKS FOR YOUR EXCELLENT REPORT ON UNEP/IEO.

FOR GENEVA: PLEASE ASSESS WORK OF THE IEB.

FOR LONDON: HAS THERE BEEN ANY FOLLOW-UP TO THE TOUCHE ROSS STUDY? ARE THERE OTHER UK INITIATIVES OF WHICH WE SHOULD BE AWARE?

FOR UNEP, UNDP, FAO PERMREPS: PLEASE REPORT ON PROGRAMS AND RESOURCES YOUR ORGANIZATION CURRENTLY DEDICATES TO CLIMATE CHANGE TECHNOLOGY COOPERATION? PLEASE PROVIDE YOUR PERSPECTIVE ON THE PROGRAM'S EFFECTIVENESS. ARE SIGNIFICANT NEW INITIATIVES BEING CONSIDERED?

FOR TOKYO: CONTINUED UPDATES ON IMPLEMENTATION PLANS FOR NEW EARTH 21 AND THE PROPOSED TECHNOLOGY INSTITUTE WOULD BE HELPFUL.

PLEASE SLUG CABLE RESPONSES FOR OES/EGC. UNCLASS SUPPORTING DOCUMENTS CAN BE FAXED TO STEPHANIE KINNEY, OES/EGC, RM. 4329A, (202) 647-0191.

NB: THIS CABLE ALSO CLEARED BY: S/P:CLDAWSON, L/OES:JEDONOGHUE, EB/IDF/ODA:JPRESTON,

EUR/RPE:CPIERANGELO, IO/T:TMARTIN
BAKER

CO-CHAIRS SUMMARY

Working Group 2

When we established our work plan on Monday, we set for ourselves 2 objectives:

1. to do a complete first reading of all text relevant to our mandate, and

2. to make some progress on the development of draft text.

We are pleased that these objectives were achieved.

Of most importance, we feel that there was a constructive atmosphere in which people freely exchanged views and questioned and learned from each other, while engaging in productive dialogue.

We leave our first substantive session knowing a little more about the positions of others, the thinking behind those positions, and the magnitude of the task that lies ahead of us.

In making this summary, there are two important things to say at the outset:

1. Throughout our discussions we remained fully conscious of the determining influence the deliberations and conclusions of Working Group 1 will have on our work. In that sense, any tentative conclusions we drew can only be seen as preliminary.

2. Fortunately, we had in hand some excellent texts from which we could work. The thought that had gone into these texts assisted us greatly, and in most of our sessions we were able to begin to focus on 1 or 2 texts. This will be very important for future work. It was of course the understanding of the group that these texts were only starting points and the contributions of all delegations would continue to be sought.

With regard to the 3 parts of our mandate, we would offer the following comments:

Firstly, 7 a) With respect to legal and institutional mechanisms, including, inter alia, entry into force, withdrawal, compliance and assessment and review.

The following common themes emerged:

- that mechanisms should be defined pursuant to the commitments arrived at in Working Group 1.
- that national sovereignty is to be respected and any mechanisms should not be intrusive or supra-national.
- that mechanisms need to be flexible and adaptable.
- that a Conference of the Parties should be the supreme decision-making body.
- that a Secretariat, supporting the Conference of the Parties, should be independent of any other organization.
- that some form of non-adversarial review mechanism that does not focus exclusively on emissions would probably be appropriate.
- that the building of sufficient capacity will determine the ability of countries to meet their commitments.
- that reporting of information and data should be based on nationally-designated bodies.

There was a divergence of views on the following:

- whether a dispute settlement mechanism should be compulsory or voluntary.
- whether implementation and review mechanisms should be addressed in a convention or in protocols.
- whether entry into force should be pursuant to a specified number of ratifications or on the basis of ratification by countries producing a fixed percentage of global emissions.
- whether reservations to the convention should be allowed.

Secondly, 7 b) **With respect to legal and institutional mechanisms related to scientific cooperation, monitoring and information.**

There was unanimous agreement that science and the continuing development of our scientific knowledge through research, is the basis upon which our convention must rest. Therefore, we are pleased that considerable progress was made in developing a bracketed text which will be circulated prior to, and examined

further, in Nairobi. There was also general agreement that an annex on systematic observation and research would eventually be required.

Thirdly, 7 c) **With respect to legal and institutional mechanisms related to adequate and additional financial resources and technological needs and cooperation, and technology transfer to developing countries corresponding to the commitments agreed to in Working Group 1.**

Delegations were generally of the view that these subjects were among the most important for a framework convention on climate change. The historic and global nature of the challenge was noted.

Several common themes emerged:

- that transfer of technology and adequate and additional funding will be critical in order to allow developing countries to assume their obligations and responsibilities under the convention.

- that country studies could be very beneficial in clearly defining technology needs and that the lead in this process should be the country under study.

- that there is a need to devise mechanisms which recognize, support and further develop local and indigenous technology.

- that education, training, human resource development and institution-building are important components of technology transfer.

- that technologies must be appropriate to the specific situations of particular countries.

- that research to develop environmentally sound technologies should be encouraged.

- that institutional mechanisms concerning transfer of technology and financial resources should be based on a genuine partnership and under the decision-making control of the parties to the convention.

- that lessons learned, in particular from the Vienna Convention and Montreal Protocol were relevant to the establishment of mechanisms under a climate change convention.

- that mechanisms have to be found to promote equitable and democratic decision-making.

- that fulfilment of commitments on funding and technology should be subject to review.

- that institutional duplication should be avoided.

- that there could be a role for a technology clearing house.

There was a divergence of views on the following:

- whether financial resources must be new funds separate from aid or development assistance.

- whether the Global Environment Facility (GEF) is an appropriate mechanism or whether new and different institutions need to be created for the transfer of financial resources under this convention.

- whether a Climate Fund should be established and whether it should be based on mandatory assessment or voluntary contributions.

- whether the term technological transfer is more appropriate than technology cooperation.

- whether technology transfer and/or cooperation should be provided on a fair and most favourable or concessional and non-commercial basis.

- whether or not the question of intellectual property rights is an impediment to the transfer of technology.

Finally, Mr. Chairman, we are of the opinion that the decision of the Group to entrust to the Co-chairs the development of a single text related to our mandate will allow us to make significant and continued progress at our next meeting in Nairobi.

Both Ambassador van Lierop and I want to express our appreciation for the constructive cooperation exhibited by all delegations in the deliberations of Working Group 2. This positive attitude to our work allowed us to achieve the progress outlined above. We know that this momentum bodes well for our deliberations in Nairobi.

Environmental Defense Fund
257 Park Avenue South, New York, NY 10010

NEWS RELEASE

For Immediate Release Contact: Jim Middaugh (202)387-3500

CLIMATE NEGOTIATIONS TAKE SMALL STEP TOWARD 'EARTH SUMMIT' U.S. KEEPS LOW PROFILE

Geneva, June 28, 1991-- The second session of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change ended in Geneva today as the U.S. managed to avoid a confrontation over its failure to adopt targets and timetables to cut CO_2. The committee failed to produce a draft text as the basis for future negotiations, as hoped for since the Chantilly session, but the session did at least move beyond organizational matters to lay the key issues on the table.

The U.S. position remains at odds with those of other major industrialized countries, which reiterated their commitment to adopt legally binding obligations to stabilize or reduce CO_2 emissions by the year 2000. At the next session in Nairobi in September it is expected that other industrialized countries will start the push to agree on such obligations. The pressure is still on the U.S. to join the carbon club.

"The U.S. may have slipped through this round, but it can't dodge facing up to the international responsibilities much longer," said EDF senior attorney Scott Hajost, "the world expects leadership and its time for the U.S. to deliver in order for these negotiations to succeed."

"President Bush will face a clear choice before next year's Earth Summit in Rio --adopt targets and timetables or undermine an effective convention and the conference itself," NRDC senior scientist Daniel Lashof said.

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2nd Round – EC

30.5.91

INFORMAL DISCUSSION PAPER FROM THE SERVICES
OF THE COMMISSION ON

THE CONVENTION ON GLOBAL CLIMATE CHANGE

Introduction

1. The Second World Climate Conference called for negotiations on a Convention on Climate Change to begin without delay and urged all countries and Regional Economic Integration Organizations to join in these negotiations.
Although many different interests are involved in the negotiations on a Climate Change Convention and related Protocols the best results for the environment while allowing as many countries to join in as possible should be found.

Opinions differ within and between groups such as the EEC, EFTA, OECD, the Eastern European Countries and the USSR but also among more and least developed countries and countries especially treatened by Global Climate Change. However many similarities and a great deal of common ground is also present and it should be possible to achieve satisfactory results at the Second Session of the Intergovernmental Negotiating Committee in Geneva in June 1991.

Background

2. Since the need to elaborate a Convention on Global Climate Change was acknowledged several attempts have been made to bring forward guidelines and solutions for a draft of such Convention.

Already in 1989 the Noordwijk Declaration recognized the need to stabilize CO_2 emissions and emissions of other greenhouse gases not controlled by the Montreal Protocol; the same basic idea was used inter alia in The report on Preventive Measures to Protect the Earth's Atmosphere (Germany 1989), The Bergen Declaration (May 1990), The Houston Declaration (June 1990), The Report on A Comprehensive Approach to addressing Potential Climate Change (US, February 1991) and in particular in the Ministerial Declaration from the Second World Climate Conference (November 1990).

3. While recognizing the uncertainties the IPCC declared in their First Assessment report that they are certain that emissions resulting from human activities are substantially increasing the athmospheric concentrations of the greenhouse gases : carbon dioxide, methane, CFC and nitrous oxide and that these increases will enhance the greenhouse effect, resulting on average in an additional warming of the Earth's surface.

Commitments

4. All the reports and declarations recognize the need to take steps to combat Global Climate Change by taking account of all greenhouse gases and sinks, their interrelationships and their effects on the environment.

In the Second World Climate Conference Declaration, the 137 countries and the European Communities represented at the Conference recommended that in the elaboration of response strategies, over time, all greenhouse gases, sources and sinks be considered in the most comprehensive manner possible and that limitation and adaptation measures be addressed. The second World Climate Conference further stressed as a first step the need to stabilize emissions not controlled by the Montreal Protocol while ensuring sustainable development of the world economy.

These statements confirm the agreement by all countries on the need to take all greenhouse gases into account over time as well as the special need to stabilize emissions of greenhouse gases and reflects a widespread understanding that actions already committed under the Montreal protocol to phase out CFC's should not be considered as part of national strategies to achieve such stabilization.

An important supplementary point in the declaration concerns the decisions and commitments undertaken by the European Community and most other OECD-countries covering at least 22 developed countries to take a first substantial step aimed at stabilizing individually or jointly their emissions of CO_2 or CO_2 and other greenhouse gases not controlled by the Montreal Protocol by the year 2000 in general at 1990 level.

5. Taking into account that most developed countries have decided to stabilize over time all greenhouse gases not controlled by the Montreal Protocol and that the present knowledge on greenhouse gas emissions is not equally advanced for all gases, an effective approach must be phased in order to reflect this. A phased strategy should include a long term comprehensive response to global climate change with the aim of stabilizing and reducing greenhouse gas emissions in general and specific commitments on individual greenhouse gases and/or individual sectors on a national, regional or global level, as soon as a sufficient basis for such commitments becomes available.

Furthermore it would be relevant to define greenhouse gases in an annex to the Convention to clarify which substances are covered by it. The ultimate global objective should be to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic interference with climate.

6. All countries and groups of countries should commit themselves to draw up inventories to monitor their greenhouse gas emissions and to include an assessment of impacts on greenhouse gas emissions in their sectoral planning (energy, transport, agriculture, development, etc.) and to report on this assessment.

7. Parties to the Convention should ensure that the measures they take, as described in their national strategies are consistent with the obligations of other relevant international instruments and do not serve to introduce trade barriers between Parties to this Convention.

CFC's

8. Although the Vienna Convention and the Montreal Protocol were agreed in order to stop the depletion of the Ozone Layer and not because of the greenhouse effect and in spite of the clear text of the Second World Climate Conference Declaration some states have argued that the reduction and elimination of CFC's should also be counted into a greenhouse gas stabilization.

If this were to be the case, some countries would be able to stabilize or even reduce their total greenhouse gas emissions without making any further effort than what has already been agreed in the context of the Montreal Protocol.

Since the Convention on Global Climate Change will contain obligations which will strech far into the next century it would, furthermore, seem irrelevant to include CFC's in the Convention as the CFC's will be phased out within a few years.

It must therefore be clear that CFC's covered by the Montreal Protocol should not be part of commitments taken under the Climate Change Convention.

Countries which are not parties to the Montreal Protocol should be urged to take steps to accede to the Protocol.

The common but differentiated responsibility

9. It has been recognized on several occasions that while there is a common international responsibility for Global Climate Change, there is scope for some differentiation between individual countries in the demands which might be placed upon them. Countries must take their due share of responsibility for what may happen in the future taking into account their level of development and their contribution to Global Climate Change.

Many countries are still in a process of industrialization and further development is necessary. This means that these countries cannot today commit themselves to stabilize greenhouse gas emissions. At the same time lack of economic resources make funding and assistance of different types essential.
All countries should recognize that many meaures to reduce CO_2 emissions have other benefits as well, in some cases sufficient to be justified alone on these benefits (No-regret policy).

Energy

10. Since the problems and responses in the energy sector related to methane and in particular CO_2 are the best known immediate steps in respect of these gases should include:

- energy saving and rational use of energy through vigorous promotion of existing energy efficient technology and development of environment friendly advanced energy utilization techniques and strategies at all stages of the energy chain from initial resource exploitation through distribution and conversion to end use.

- development and utilization of low and non carbon containing energy sources and, in particular, biomass and renewable energies.

- encouragement of the general population at the industrial, commercial and individual level to place an extra value on energy efficiency and conservation. This will involve education, training and promotion and may also require the use of economic and/or fiscal incentives.

- reduction in methane emissions from gas leakages, coal mining and industrial processes

- increased use of methane from landfill sites as an energy source

11. Taking into account that most developed countries are already willing to commit themselves to stabilize and/or reduce greenhouse gas emissions as soon as possible, this should be the minimum request for them. For CO_2 stabilization of emissions should in general be achieved by them by the year 2000 at 1990 level. Countries might make arrangements to meet their obligations under the Convention jointly as it has been the case in the European Community.

Stricking to Targets timetable & Strategy to CO_2

12. In the longer term developed countries should develop proposals for global emission reduction targets separately for CO_2 and other greenhouse gases including possible strategy options aimed at progressive reductions at the horizon 2005 and 2010.

Forests

13. The 137 countries and the European Community present at the Second World Climate Conference noted that the conservation of the world's forests in their role as reservoirs of carbon along with other measures are of considerable importance for global climatic stability and recognized the need to reduce the rate of deforestation in consonance with the objective of sustained yield development and to enhance the potential of the world's forests through improved management of existing forests and through vigorous programmes of reforestation and afforestation in relation to tropical, temperate and boreal forests and should encourage in particular countries with tropical forests to develop appropriate programmes and policies.

14. All Parties to the Convention should undertake to promote the protection and enhancement of sinks and reservoirs for greenhouse gases. In particular, the parties should agree to establish appropriate national forest policies including for example afforestation targets for forestation or reduction in deforestation. Such policies should take account of their different circumstances and comprise targets for the maintenance of existing forest area or re and afforestation.

15. Developed countries should commit themselves to supporting the actions of developing countries through technical and financial co-operation in the endeavour to protect and enhance sinks and reservoirs.

Developing countries

16. Developing countries should also commit themselves to preparing and submitting national targets or strategies which will limit emissions of greenhouse gases and protect and enhance sinks, basing their continued development on energy-efficiency technology and should agree to take as a guideline that they will keep future net growth of greenhouse gas emissions to the lowest level possible, having due regard to their development requirements and their capabilities.

Financial and Technical Cooperation

17. Linking the Global Climate Change problem with economy is necessary and unavoidable. All parties must ensure that maximum environmental benefit is obtained for the minimum costs.

In order to ensure sustainable development in the industrialization of developing countries, the parties to the Convention should promote the use of the best available environment -friendly technology in the pursuit of development policy and when technology is transferred.

18. To help inter alia developing countries meet the incremental costs required to achieve limitation of greenhouse gas emissions, and to help them meet their specific obligations under the Convention, developed countries should provide additional financial resources and appropriate transfer of environmentally sound technologies on a fair and most favourable basis.
The provisions of financial resources should be achieved by promoting and developing existing institutional mechanisms.

Implementation and compliance

19. Each Party to the Convention should prepare and submit to the Secretariat in good time before each meeting of the Conference of the Parties, a report on its progress in meeting its obligations under the Convention.

20. In order to ensure proper implementation of the functioning of the Convention it should contain provisions for the Conference of the Parties to establish an Executive Body or a Review Panel to receive, analyse, disseminate and publish the information contained in the national strategies and the progress reports submitted by the Parties. Its task could be:

- to assess and compare the measures adopted by individual nations and to circulate to all Parties, through the Secretariat, technical and economic information on their implementation and cost effectiveness

- to help, upon request, any Party to devise and implement further measures in their national strategies based on the information received.

21. The Review Panel or Executive Body should be assisted by a secretariat sufficiently staffed to enable the relevant evaluation of the reports.

The Review Panel or Executive Body should be charged with the task of considering and publishing the progress reports which each Party would be required to submit to the Secretariat before each meeting of the Conference of Parties.

Where it considers that additional action is needed in order to ensure that a Party meets its obligations, it should be required to report that finding, through the Secretariat, to the Party concerned. The Secretariat should then consult with the party to determine what further steps might be taken.

Structure of the instrument

22. In order to facilitate continuous ajustments of agreed specific commitments and to allow new commitments to be agreed the Convention should contain provisions to ensure that protocols on specific areas could be adopted and amended according to a simplified procedure.

23. Insofar as specific measures are not prescribed in the Convention itself, Parties to the Convention should commit themselves to adoption of protocols which should notably set targets for the limitation and/or reduction of greenhouse gas emissions, in particular CO_2 and establish measures to curb deforestation and promote sustainable forest management and afforestation.
Negotiations on these protocols should start immediately and be completed before the 1992 Conference on Environment and Development.

Parties to the Convention

24. The Convention should be open for signature by all states members of the UN or of its specialized agencies and for Regional Economic Integration Organizations.

Summary

25. The World is anxiously waiting for the Intergovernmental Negotiating Committee to agree on a proposal for a Convention which in the long term will ensure a global stabilization of greenhouse gas concentrations.

In order to attain this goal, it is necessary to decide as soon as possible which steps to take and to include these in the Convention or in its associated Protocols.

All parties to the Convention should commit themselves to:

1. Establish inventories of:

   - current levels and sources of greenhouse gas emissions from different sectors
   - projected future levels of greenhouse gas emissions from different sectors
   - current and estimated future forest areas and if possible other areas covered with vegetation relevant for climate issues (sources, sinks and reservoirs)
   - the measures already in hand to control emissions of greenhouse gases and protect and enhance sinks and reservoirs
   - potential and/or planned additional measures in these regards
   - the likely impact that these measures will have on future levels of emissions of greenhouse gases and forest areas and other sinks and reservoirs, and their cost effectiveness.

2. Promote the protection and enhancement of sinks and reservoirs for greenhouse gases through the adoption of appropriate national forest policies.

3. Promote the use of the best available environment friendly technology to be used in development policy and when technology is transferred including the use of cleaner more efficient energy sources with lower or no emissions of greenhouse gases.

4. Integrate education, training and promotion into their policies relating to Global Climate Change.

5. Prepare and agree Protocols on specific measures which are not immidiately included in the Convention.

6. Establish policies and strategies to limit emissions of greenhouse gases taking into account their economic possibilities and need for development.

Developed countries should individually or jointly in particular:

7. Stabilize as a first step in a comprehensive approach CO_2 emissions in general by the year 2000 at 1990 level.

8. Prepare national targets for stabilization and/or reduction of other greenhouse gases or combinations of greenhouse gases not covered by the Montreal protocol when sufficient knowledge allows.

Should work towards CO2 target -- then a compliance approach on other gases.

9. Consider proposals for emission reduction targets separately for CO_2 and other greenhouse gases including possible strategy options aimed at progressive reductions at the horizon 2005 and 2010.

After 2010.

10. Provide financial assistance to developing countries in order to help them to meet the incremental cost required to achieve further limitations of greenhouse gas emissions. This should be achieved by promoting and developing existing institutional mechanisms.

11. Provide appropriate transfer of environmentally sound technologies to help them meet their specific obligations under the Convention.

Developing countries should in particular:

12. Base their continued development on energy efficient technology and careful biomass management.

13. Take as a guideline that they will keep the future net growth in greenhouse gas emissions to the lowest level possible, having due regard to their development requirements and their capabilities.

2 Mr Round

22 May 1991
ENGLISH ONLY

INTERGOVERNMENTAL NEGOTIATING COMMITTEE
FOR A FRAMEWORK CONVENTION ON CLIMATE CHANGE
Second session
Geneva, 19-28 June 1991
Item 2 of the provisional agenda

PREPARATION OF A FRAMEWORK CONVENTION ON CLIMATE CHANGE

Set of informal papers provided by delegations, related to the preparation of a framework convention on climate change

Addendum

A/AC.237/Misc.1/Add.1
GE.91-60899

List of informal papers

1. AUSTRALIA: Possible compliance mechanism for inclusion in a framework convention on climate change (sent with letter of 15 March 1991).

2. AUSTRIA/SWITZERLAND: Open paper, elaborated by some experts in their personal capacity, submitted by Austria and Switzerland. Shopping List. Main elements for inclusion in a framework convention on climate change or related protocols (sent with letter of 20 February 1991).

3. FRANCE: Suggestions concerning the limitation of greenhouse gases (translated from French) (circulated during first session of INC).

4. GERMANY: Non-paper. Important elements for an International Climate Convention (circulated during first session of INC).

5. MALAYSIA/MALTA: Informal paper. Outline of proposed elements of an effective framework convention on climate change (7 February 1991).

6. NETHERLANDS: Compilation of texts related to "Main Elements" (Shopping List) for a framework convention on climate change and on related protocols which have been informally circulated. Informal support-paper compiled by experts of the Netherlands delegation to the first session of the Intergovernmental Negotiating Committee, based on discussions with a number of other experts (14 February 1991).

7. NETHERLANDS: Addendum, worked out by some experts, to the Shopping List circulated informally by Austria and Switzerland (see item 2 above) and to the Compilation of Texts related to main elements (Shopping List), circulated informally by the Netherlands delegation (see item 6 above) (13 February 1991).

8. REPUBLIC OF KOREA: Comments on Non-papers submitted by certain delegations at the first session of the Intergovernmental Negotiating Committee (sent with letter of 16 April 1991).

9. UNITED KINGDOM: Draft framework convention on climate change, based on the consensus elements of the Topic Group on Legal Measures, prepared and circulated by the delegation of the United Kingdom at the first session of the Intergovernmental Negotiating Committee.

10. UNITED KINGDOM: Draft paper. Possible elements for inclusion in a framework convention on climate change (sent with letter of 26 March 1991).

11. UNITED STATES OF AMERICA: Submission of the United States to the Intergovernmental Negotiating Committee on Climate Change (sent with letter of 15 March 1991).

12. Inventory on Research, Systematic Observations, Assessments and Information Exchange. Paper compiled by a group of scientists from a wide range of delegations during the first session of the Intergovernmental Negotiating Committee (14 February 1991).

PAPER NO. 1: AUSTRALIA

This paper was prepared by Australia as a contribution to the negotiations with a view to stimulating constructive discussion of possible compliance mechanisms, which will be an important element of the Framework Convention on Climate Change. The ideas contained in the paper do not necessarily represent the final views of the Australian Government on the issue. In submitting the paper for circulation to participants in the negotiations, Australia hopes that it will be considered as a useful starting point and serve as a catalyst for discussion.

POSSIBLE COMPLIANCE MECHANISM FOR INCLUSION IN A FRAMEWORK CONVENTION ON CLIMATE CHANGE

An international response to climate change will not be effective unless the necessary measures are implemented globally. Therefore any Climate Change Convention and Protocols will need to contain sufficient incentive for countries to become a party to the Convention and thereafter to comply with the obligations under the Convention. These incentives and obligations should be integrated with a mechanism, the primary goal of which would be the early identification of problems or potential problems and the development of procedures for the State concerned either to eliminate the problem itself or be assisted in doing so.

Australia is of the view that such an implementation or compliance mechanism is essential to the success of the Convention and Protocols in combating climate change. The mechanism need not be overly adversarial or judicial in nature particularly if coupled with more positive inducements which might flow to a country which gives effect to the Convention.

The scale of the task of identifying problems in implementation of the Convention is large. The real difficulty is to devise a suitable mechanism which deals not only with the more obvious problems but also with those which might arise from minor but incremental activities. Obviously a supra-national mechanism capable of monitoring activities of this nature would, by itself, be prohibitively expensive and administratively impracticable. This means that substantial reliance will have to be placed on national institutions. Therefore one of the major functions of a compliance mechanism under the Convention will be to ensure that national mechanisms are themselves adequate to monitor implementation of internationally-agreed standards locally.

The attached text takes account of the factors mentioned above. Under the text a State Party would be required to designate a national body to monitor implementation of the Convention/Protocols within the territory of that Party. These State bodies would report periodically and directly to an Implementation Committee established under the Convention. This expert body would examine State reports and might, in appropriate cases, make recommendations to the States concerned. It would also be able to consider information obtained from other sources such as intergovernmental organisations and NGOs. It would not have any power to issue binding directives, but would report its assessments and findings to the meetings of the States Parties to the Convention.

The attached mechanism would, in Australia's view, when combined with the obligations and incentives under the Convention promote the primary objective of the Convention - that is to minimise the adverse effects of climate change. Given its primary reliance on compliance monitoring by individual States Parties, it also takes due account of the national sovereignty of each of those States.

Possible Draft Article for a Compliance Mechanism in a Climate Change Convention

"(A) Each State Party shall nominate a body within the State which shall be responsible for monitoring compliance with this Convention and its Protocols.

(B) An International Implementation Committee shall be established. It shall consist of [ ] experts on technical matters related to climate change who shall be elected in a personal capacity. The Committee shall be serviced by a secretariat.

(C) The State Party monitoring body shall:

(i) monitor compliance with this Convention and the Protocols to which it is also a Party, within the territory of that State Party;

(ii) periodically report directly to the International Implementation Committee on

(a) measures (both legal and administrative) taken by the State Party to implement the Convention and its Protocols;

(b) the adequacy of, and adherence to, those measures; and

(c) problems encountered in the implementation of the Convention and Protocols; and

(iii) assist the Implementation Committee in carrying out its functions, including by supplying any relevant information requested and by facilitating visits by International Implementation Committee missions as provided for in sub-paragraph D (vi)

(D) The International Implementation Committee shall be responsible for investigating and reporting on implementation of the Convention and Protocols by all States Parties, and for drawing the attention of a State Party to any discrepancy between its obligations under the Convention (and any Protocol to this Convention to which it is Party) and its laws and practices. In carrying out these functions the International Implementation Committee shall:

(i) examine and assess the periodic and other reports submitted by State Party monitoring bodies;

(ii) investigate complaints relating to implementation by a State Party received from any other Party:

(iii) consider information from other sources including intergovernmental organizations;

(iv) request the Party which is the object of the complaint to respond to the complaints made under sub-paragraph (ii) above;

(v) request further information or clarification on responses received under sub-paragraph (iv) above, on reports submitted by State Party monitoring bodies or by States Parties themselves, and in relation to information provided to the Committee by the sources referred to in sub-paragraph (iii) above;

(vi) with the consent of the Party concerned, send a visiting mission if, after receiving the information or clarification referred to in sub-paragraphs (iv) and (v) above, the Committee is of the view that enquiries in the territory of the party concerned are necessary;

(vii) report its assessments and findings to the State Party concerned, drawing its attention to any discrepancy between that State's obligations under the Convention and Protocols and its law and practices; and

(viii) report its assessments and findings, including the information and observations provided by States Parties, to the next ordinary meeting of States Parties for their consideration and further action, including assistance to the State Party concerned, as appropriate.

(E) The foregoing shall be without prejudice to arrangements which may exist between States Parties for the settlement of disputes arising out of this Convention and its Protocols, including possible recourse to the International Court of Justice."

PAPER NO. 2: AUSTRIA/SWITZERLAND

Open Paper, elaborated by some experts in their personal capacity, submitted by Austria and Switzerland.

Shopping List

Main Elements for Inclusion in a Framework Convention on Climate Change or Related Protocols.

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1. Preamble

2. Definitions

[...]

3. General Obligations

3.1 **LONG TERM GLOBAL OBJECTIVE:** Stabilisation of greenhouse gas concentrations in the atmosphere at a level which minimises risks to ecosystems, ecological processes, and climatic conditions essential for the functioning of the biosphere and the sustainable development of societies and economies.

[The question of quantification of stabilisation levels will have to be elaborated further. In particular, a time horizon and mechanisms for defining and reviewing stabilisation levels will have to be developed.]

3.2. Obligation to minimise adverse effects of global climate change.
[Terminology to be defined in an article on the Definitions].

3.3. Obligation to take appropriate action in pursuance of the long term global objective, on the basis of the precautionary principle.

As a first step:

* Stabilisation of carbon dioxide emissions by industrialised countries at 1990 levels by the year 2000;

* Stabilisation of carbon dioxide emissions by other countries at 1990 levels by a year to be agreed upon;

* Obligations should be equitably differentiated according to countries.

3.4. Obligation for the Parties to prepare, within a given time frame, national and/or regional programmes or strategies to combat global warming. At this point, it will have to be discussed whether policy instruments contained in these programmes or strategies should be further qualified, especially economic, fiscal and financial instruments.

3.5. Obligation to aim at energy conservation and rational use of energy and development of renewable energy sources.

3.6. Obligation to conduct environmental impact assessments in order to avoid taking measures which cause or could cause other adverse social and environmental effects and risks.

3.7. Obligation to refrain from subsidising activities, inter alia in the energy domain, which contribute to global warming.

3.8. Obligation to conserve natural carbon reservoirs and sinks and to develop integrated strategies to increase sinks.

3.9. **INTERNATIONAL COOPERATION**: Obligation to cooperate in the following areas:

3.9.1. Research and systematic observations, modelling;
3.9.2. Formulation, coordination or harmonization of policies, strategies, and measures;
3.9.3. Development, coordination or harmonisation of market policy instruments;
3.9.4. Formulation, coordination or harmonisation of energy efficiency standards;
3.9.5. Internalisation of external costs in energy prices;
3.9.6. Promotion of the development and transfer of environmentally sound technologies, and technical as well as financial assistance.
3.9.7. Sustainable forest management, reduction of deforestation, and afforestation.
3.9.8. Preparation for anticipated climate change.
3.9.9. Pursuit of policies aimed at sustainable development.
3.9.10. Promotion of education and information.

[...]

4. Specific Provisions

4.1. Principles; e.g., recognition of the different circumstances of countries, including the particular circumstances of developing countries and countries with economies in transition.

4.2. Obligation to cooperate in the development of funding mechanisms, particulary through existing mechanisms, for the transfer of additional financial and technological resources to the above mentioned countries in order to assist them in preparing for anticipated climate change and in meeting the obligations under the Convention and its related protocols.

4.3. Development and transfer of technology and technical assistance.

4.4. Transitional provisions and specific criteria for developing

countries and for countries whose economies are in transition.

[...]

5. Information Exchange

5.1. Exchange of scientific, statistical, technical, socio-economic, legal, and other relevant information.

[...]

6. Reporting

6.1. Obligation to provide periodic reports on progress in implementation of the goals and obligations of the Convention and its related protocols.

[...]

7. Research, Systematic Observations and Monitoring

7.1. Intensified global data collection and research efforts through international programmes (WCP, IGBP, etc).

7.2. Collection, analysis and dissemination of pertinent information and data.

7.3. Improvement of the capability of developing countries to collect and assess climate information, prepare emission inventories, assess possible impacts of global warming, participate in international research programmes.

7.4. Initiation, intensification or continuation of research efforts in other domains, such as socio-economic causes and effects of global warming, impacts of the increasing greenhouse effect on the environment and society, and strategies to reduce emissions of greenhouse gases and their socio-economic implications.

7.5. Definition of the possible role of IPCC

[...]

8. Institutional Aspects: Conference of the Parties, Executive Committee, Secretariat and Review Panels.

8.1. Continuous review of implementation and compliance with the goals and obligations of the Convention and its related protocols.

8.2. Periodical review of available scientific, environmental, technical and economic information with respect to climate and climate change.

8.3. Definition and revision of the long term global objective and targets.

8.4. Promotion of coordination or harmonisation of policies, strategies, and measures for controlling and preventing activities which cause adverse effects of climate change.

8.5. Adoption of programmes for research, systematic observation, scientific and technical cooperation, technology transfer, exchange of information, promotion of public awareness.

8.6. Cooperation with relevant international organisations, e.g., WMO and UNEP.

8.7. Arrangements for the cooperation with Non-Governmental-Organisations.

8.8. Evaluation and revision of the Convention and its related protocols.

[...]

9. Protocols/ Annexes

9.1. Implementation of the Convention through Protocols/ Annexes.

9.2. Protocols/ Annexes on programmes for actions setting targets for the limitation and/or reduction of net greenhouse gas emissions, in particular CO2, might cover the following issues:

9.2.1. Emissions of CO2 and/or other greenhouse gases, including funding mechanisms;
9.2.2. Sustainable forest management/ reforestation/ afforestation, including funding mechanisms;
9.2.3. Development and transfer of technology;
9.2.4. Scientific issues.

[...]

PAPER NO. 3: FRANCE

Translated from French

FRENCH SUGGESTIONS CONCERNING THE LIMITATION OF GREENHOUSE GASES

This document puts forward a number of ideas concerning the problem of the limitation of greenhouse gases in the convention on climate change. At this stage, it does not deal with the questions of institutions, sinks, technology transfers or additional financing.

GENERAL CONSIDERATIONS

The conclusions of IPCC, corroborated by the work of the French Academy of Science, recommend:

- The limitation of the climate change now under way by stabilizing the radiating effect of human emissions of greenhouse gases (CO_2, N_2O, CH_4, CFC and HFA) or of gases contributing indirectly to the greenhouse effect (CO, NO_x, HC).

- The immediate adoption of measures to prevent the consequences of climate change. In this respect, prevention measures will be all the less costly because they will have been decided on in time.

A world-wide strategy must be initiated as soon as possible because the reduction of greenhouse gases by only a few States will not suffice. This strategy must be based on action principles.

ACTION PRINCIPLES

In order to build up and maintain the general support essential for the success of the enterprise, a certain number of principles must be observed:

- Responsibility and preponderant role of the industrialized countries;

- The necessary participation of all countries from the very beginning;

- Equitable sharing between countries or major regions of the objectives established;

- The greatest possible harmonization of the measures adopted in order to avoid the distortions of competition;

- Consideration of the specific needs of the developing countries both as regards the adoption of commitments and the financing and transfer of technology.

ELABORATION AND FOLLOW-UP OF STRATEGIES

The convention should allow the elaboration by States or international organizations of strategies or programmes of action endorsing the objectives adopted and the means chosen.

The convention should provide a general framework for the elaboration of such strategies.

These national reports might contain a list of the emissions of greenhouse gases, the internal measures taken to reduce them and the results obtained; they will make it possible to verify the fulfilment of the commitments undertaken and to facilitate the harmonization of measures.

These reports will be published and communicated to the parties within the framework of a follow-up mechanism and may give rise to discussion and comments and public evaluations.

ESTABLISHMENT OF LIMITATION OBJECTIVES

All gas emissions which contribute to the greenhouse effect should be limited but carbon dioxide deserves special attention because of the juxtaposition within it of four specific characteristics:

- It is mainly responsible for the additional anthropogenic greenhouse effect;

- It remains for a very long time in the atmosphere once it has been emitted and this period becomes still longer as a result of the weakening of the ocean's role as a sink and as the warming effect increases;

- It requires important structural modifications in our economies, harmonized at the international level, in order to prevent carbonic emissions as distinct from other gases;

- The quantities of CO_2 fossile emissions are the best known. Their control today is the only one practicable, in the same way as CFC emissions.

Thus, even if the negotiations must take into account all the gases contributing to the greenhouse effect, it is inappropriate to seek to negotiate a global objective for the limitation of emissions, without running the risk of failing to adopt specific short-term commitments.

In the following paragraphs we shall deal with the limitation of CO_2 emissions of fossile origin.

While the establishment of objectives cannot of itself produce all the actions necessary for the campaign against the greenhouse effect, it will signify the political will of States to take appropriate measures and will define the ultimate aim which we must pursue.

These objectives will be established over two timeframes:

- A long-term common objective whose aim would be to stabilize the concentration of greenhouse gases in the atmosphere.

  For CO_2, this objective must be formulated on the premise that emissions from States will converge at a common level expressed in tons per inhabitant.

  It would correspond, according to the IPCC studies, to an overall reduction of more than 50 per cent compared to present global emissions, i.e. 0.35 of a ton of carbon per inhabitant per year by 2030.

  It reflects the idea that it is possible to obtain comparable results from every nation in energy efficiency or alternative energy substitutes for fossil energies, since a certain time period is stipulated for the implementation of the necessary adjustments. Conversely, it reflects the idea that it is unrealistic to think that every nation can reduce its emissions by the same percentage, even if that weakens the principle of equity recalled in the preamble.

  In order to take into account past efforts, the room for manoeuvre that still exists and predictable future trends, the target should be expressed in absolute terms and not in relative terms with respect to a level of emission in an arbitrarily selected year.

- A short-term objective: Establishing a short-term objective with respect to CO2 (by the year 2000) should result in the formulation of a first set of commitments by industrialized countries along the lines of the Luxembourg Declaration (October 1990) and the Ministerial Declaration of the Second World Climate Conference (November 1990).

  This short-term objective will demonstrate the political will of industrialized countries to combat the greenhouse effect and may take the form of limitation objectives at a given level of emission, depending on the situation of each country.

France, which has already reduced its CO_2 emissions by nearly 30 per cent since 1980, is prepared, for its part, to set itself a national stabilization target by the year 2000 at a level below 2 tons per inhabitant per year, provided that the major industrialized countries take a similar approach.

The possibility of regional accords must be recognized, through which, if need be, the measures taken can be optimized economically. The European Community should thus be considered in its entirety.

From the developing countries, for example, such commitments as improved energy efficiency, and more particularly, CO_2 efficiency, will be sought with concomitant financing.

ADOPTION OF HARMONIZED INSTRUMENTS

It is commonly acknowledged that CO_2 emissions reduction requires "tough" policies at yet undetermined costs, particularly since the objectives established must be ambitious in order to meet the objective of stabilizing the warming effect.

In this context, countries cannot undertake commitments unless they are assured that the actions decided will not create situations in which competition is distorted.

International harmonization of the economic and regulatory measures to be taken is essential even if certain countries are penalized at the expense of others.

It is therefore important that the convention define these principles, establish guidelines and define phases.

As recommended in the final IPCC report, countries must initially consider the subsidies and tax incentives which favour the energy and greenhouse gas-producing sectors. France, for its part, believes that such an analysis would bring about the rapid disappearance of fossil energy subsidies.

The industrialized countries should institute within their national tax systems a graduated surtax on fossil energy at a uniform rate to cover the external costs of the greenhouse effect. This tax would be applied in the industrialized countries under conditions which would avoid both distortions in competition and the dislocation of industrial sites.

The implementation of actions designed to reduce CO_2 emissions will be the natural corollary of the signal sent by this pricing. It cannot in itself build a genuine market for energy efficiency. Reaction to the price must be accompanied by the simultaneous implementation of the following actions:

- Introduction of harmonized incentives or regulatory measures in the areas of industry, transport and construction;

- Emergence of a co-ordinated international effort for technological developments in energy management.

PAPER NO. 4: GERMANY

Rev.2

Non-Paper

submitted by the delegation of the Federal Republic of Germany

Important elements for an International Climate Convention

I. The preamble should in particular contain the following elements:

1. The protection of the climate is a common concern of mankind.

2. The climate changes resulting from the anthropogenic greenhouse effects present a global danger to mankind and the entire biosphere. The prevention and containment of this danger has become one of the major challenges to mankind. Thus, for reasons of precaution and in the interest of present and future generations, strategies and measures designed to protect mankind and the environment should be initiated and developed immediately.

3. A global answer as well as national and international action to protect the climate, taking into consideration the sovereignty of each country are necessary.

4. The Contracting Parties are prepared to contribute towards a sustainable development and in doing so, to use the limited resources available in such a way that the atmosphere's pollution tolerance is put under as little strain as possible.

5. In doing so, we are aware of the special responsibility and obligation in particular of the developed countries with regard to developing and taking appropriate measures and strategies since these countries have been the main sources of the increase in atmospheric concentrations of climate-relevant [redacted] trace gases.

6. We understand in particular the special situation of the developing countries which have to make the development necessary due to their economic and social circumstances compatible with measures for the protection of the environment and the climate. However, it is only with their broad participation that the global challenge can be met effectively.

7. We are fully aware that not every country is able to take the necessary measures by itself alone. For this reason, the developed countries declare their readiness to grant the necessary, adequate support.

8. The transfer of knowledge and environmentally sound technology is of particular importance for all Contracting Parties, in particular the developing countries.

9. The developed countries recognise the need to support the developing countries by providing adequate and additional financial resources.

10. The various interdependencies involved are to be taken into account so that the proposed measures ensure that no inacceptable ecological and social damage and risks arise and that at the same time other adverse consequences and risks are reduced and/or minimised as far as possible.

11. It is necessary to carry out further research and systematic observation in order to deepen further scientific knowledge both on the complex interrelations between various implications of climate change and on strategies for action.

II. The operative part of the Convention should in particular contain the following regulations:

1. Definitions

2. The Contracting Parties should commit themselves to undertake without delay and in the interest of precaution, on the basis of the best available technology, suitable measures

   - for the effective limitation / reduction of emissions of anthropogenic climate-relevant gases, in particular CO_2, CH_4, N_2O and NO_2, CO and VOC as precursors of tropospheric ozone

   - for the conservation and creation of CO_2 reservoirs and sinks, as well as

   - to develop strategies and measures to adapt to changes in the climate and to reduce climate-related damage.

   The various contries' share of reduction respectively degree of limitation in climate-relevant emissions as well as the provisions for the conservation [redacted] and creation of CO_2 reservoirs and sinks are to be determined by a scheme which takes into account the major criteria.

Account is to be taken of the economic and social development of each individual country.

3. The Contracting Parties should commit themselves to carry out the measures to limit and reduce emissions of anthropogenic climate-relevant gases in such a way that

a) the global energy-related, climate-relevant emissions of in particular carbon dioxide (CO_2), methane (CH_4), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) as precursors of troposheric ozone are considerably reduced.

This requires

- a stabilization of the global energy-related CO_2 emissions at their 1990 level by the year 2000 and first steps towards their reduction in the years 2005 and 2010 as well as

- a definition of the objectives and measures to reduce and limit further energy-related emissions, in particular CH_4, NO_x, CO and VOC emissions.

This requires immediate and drastic measures on the part of the developed countries in order to stabilise and reduce their emissions.

Countries which until now have had a relatively low energy consumption and thus low emissions, but which will continue to grow because of their economic and social situation can set appropriate objectives and

strategies for their development. They ought, however, to play their part in limiting the increase of emissions by accepting the obligation to strive for more efficient energy use in their economic activity and thus for a limitation of emissions.

b) emissions are to be limited and reduced in particular in the following areas:

- the use of fossil fuels in the combustion process,

- in the preceeding processes, particularly in methane emissions from coal mining (mine gas), oil extraction, the extraction of natural gas and leakages during the transportation and distribution of natural gas,

- by measures to reduce energy use in the final consumption process, i.e. domestic use, smallscale use, industry, traffic and transport,

- as well as measures in the area of waste/garbage/ recycling;

Measures are in future taken both in the developed and - adjusted to their respective circumstances - the developing countries to reduce and/or limit emissions of climate-relevant trace gases, initially in particular in view of more rational energy generation and use, energy saving as well as increased use of renewable energy sources.

c) further climate-relevant emissions, in particular CH_4 and N_2O emissions from agriculture are to be limited and reduced

4. With regard to the conservation and creation of CO_2 reservoirs and sinks, the Contracting Parties should commit themselves within the framework of the Convention

a) to conserve their forests as extensively as possible in their best possible structure by conteracting the causes of the threat posed to them, i.e. the emission of pollutants or environmentally damaging use;

b) to set differentiated objectives and measures to reduce the annual deforestation rate with a view to ending forest destruction completely;

c) to carry out site-based afforestation and regeneration measures in order to create additional forests as CO_2 sinks and to improve the CO_2-binding process in existing forests;

d) to quantify the forest area required for reasons of climate protection and to use this figure as an objective for all activities in the field of forest conservation and afforestation;

e) to develop measures with regard to further CO_2 sinks and reservoirs (in particular oceans and seas).

5. The contracting Parties should commit themselves to develop strategies and measures to adjust to changes in the climate and to reduce climate-related damage.

This includes in particular strategies and measures in the fields of coastal protection, agriculture, nature conservation, soil conservation, water protection, protection of human settlement etc.

6. The Contracting Parties should commit themselves to drawing up protocols to develop further the obligations set out in II. 3. to 5. on

   - the reduction and limitation of climate-relevant emissions,
   - the conservation and creation of CO_2 reservoirs and sinks and
   - the adjustment to climate changes and the prevention and containment of climate-related damage.

   These protocols are to put the necessary measures on a more concrete footing.

7. The Contracting Parties shall use means and instruments of their choice to implement measures to comply with their obligations in line with this convention and its protocols.

8. The Contracting Parties shall ensure that the measures they take do not lead to any unacceptable ecological or social damage and at the same time as far as possible reduce and/or minimise further adverse consequences and risks. The Contracting Parties are to assess the environmental impact of the measures to be taken.

9. The developed countries shall declare their readiness to support developing countries in the participation of the present Convention whose own economic performance does not suffice to comply with obligations arising from this agreement and its protocols. They shall provide adequate and additional financial resources.

10. The Contracting Parties shall declare their readiness to cooperate in the development and transfer of knowledge and technology in line with their national legislation, regulations and practice.

11. The Contracting Parties shall regard the application of economic and fiscal instruments as appropriate. In this respect, the fullest use possible should be made of existing possibilities for achieving signalising effects.

12. The Contracting Parties shall commit themselves to continue or initiate research and scientific assessments. This holds in particular true for research on the causes of climate change, for a better understanding of the climatic and atmospheric system, on the implications of a different climate on man and his nature, socio-economic and technical environment as well as on regional peculiarities of climate change, the potential to reduce climate-relevant trace gas emissions and strategies for their reduction and prevention.

13. The Contracting Parties shall commit themselves to participate in international monitoring programmes such as the "Global Atmosphere Watch" by WMO, to introduce new monitoring programmes in line with the provisions of the Convention and to improve the availability and international exchange of data. International regulations for monitoring and measuring techniques as well as the evaluation of data should be adopted.

14. Obligation to exchange information on scientific, economic and technological development as well as on climate-related strategies and policies in line with their national legislation, regulations and practice.

15. Annual reporting by the Contracting Parties on the progress made in fulfilling the obligations provided by the convention and protocols.

16. Compliance with the agreement

17. Public awareness, training and education

18. Institutional structures

    Establishment of Contracting Parties' Conference meeting at least once a year with tasks to be laid down in detail as well as the possible establishment of institutional structures to be laid down at a later stage using as far as possible existing institutions.

19. Amendment of the agreement or its protocols.

PAPER NO. 5: MALAYSIA/MALTA

INFORMAL MALAYSIAN/MALTESE PAPER 7 Feb 1991

OUTLINE OF PROPOSED ELEMENTS OF AN EFFECTIVE FRAMEWORK CONVENTION ON CLIMATE CHANGE

Nature of the Convention
General in nature, designed to attract the widespread support of the international community; and recognising climate change as the common concern of mankind.

Text of the Convention
The constitutive elements of the future convention could include: Preamble; definitions general principles and obligations; scientific research; monitoring and assessment; information exchange; cooperation in responding and adapting to climate change and sea level rise; institutional machinery; settlement of disputes; and procedural/amendment clauses.

Annexes
There could be two annexes establishing appropriate commitments in the following areas:-
(a) The limitation, stabilization and reduction of the anthropogenic concentrations of carbon dioxide in the atmosphere, including the protection, enhancement and increase of sinks;and systematic monitoring and research.
(b)Transfer of technology and financing of the needs of developing countries in particular the needs of specially affected island states.

The relationship between the Convention and Other Instruments and Entities
In developing the Convention and its annexes, the INC may wish to consider their relationship with (i) other existing international legal instrumnets(e.g. the Convention on the Protection of Ozone Layer) or those which may be concluded by June 1992(e.g. Forest Convention and Biodiversity Convention.) (ii) the IPCC and (iii) the other relevant Organisations(e.g. WMO, UNESCO, UNDP and FAO).

Proposed Organisation of INC Work

The INC
The INC should be the main negotiating body with respect to the constitutive elements of the Convention.

Sub-Committees
There should not be more than two sub-committees at least at this session, The first to deal with CO_2 sources and sinks and the other to deal with technology transfer and funding.

Meetings
No more than two meetings of the INC or its sub-committees should be held simultaneously.

PAPER NO. 6: NETHERLANDS

COMPILATION OF TEXTS RELATED TO "MAIN ELEMENTS" (SHOPPING LIST) FOR TEXTS FOR A FRAMEWORK CONVENTION ON CLIMATE CHANGE AND ON RELATED PROTOCOLS WHICH HAVE BEEN INFORMALLY CIRCULATED.

Informal support-paper compiled by experts of the Netherlands delegation to the first session of the Intergovernmental Negotiating Committee (Washington, February 4-14, 1991).

This compilation is based on discussions with a number of other experts.

Reference made to the source materials does not necessarily indicate exact equivalence between the formulation of elements and the sources cited.

The Netherlands Delegation

Washington, February 14, 1991

MAIN ELEMENTS FOR A FRAMEWORK CONVENTION ON CLIMATE CHANGE AND/OR RELATED PROTOCOLS AND ANNEXES

On the basis of the main elements as contained in the "shopping list" submitted by Switzerland and Austria a compilation of relevant texts informally circulated by the delegations of the United Kingdom (UK), the Federal Republic of Germany (FRG) and the Netherlands (Neth) respectively has been made. In addition reference is made to the text of the decision of the Council of Environment Ministers of the European Community (EC) concerning climate change and the results of IPCC Working Group III on "Legal and institutional mechanisms" (IPCC).

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1. PREAMBLE

- See UK and FRG contributions and IPCC.

1.1. Definitions

- See UK contribution and IPCC.

2. GENERAL OBLIGATIONS

2.1. LONG TERM GLOBAL OBJECTIVE: Stabilisation of greenhouse gas concentrations in the atmosphere at a level which minimises risks to ecosystems, ecological processes, and climatic conditions essential for the functioning of the biosphere and the sustainable development of societies and economies.

The question of quantification of stabilisation levels will have to be elaborated further, in particular, a time horizon and mechanisms for defining and reviewing stabilisation levels will have to be developed.

- IPCC: The protection, stabilization and improvement of the composition of the atmosphere in order to conserve climate for the benefit of present and future generations.

2.2. Obligation to minimise adverse effects of global climate change. [Terminology to be defined in an article on the Definitions].

- UK Art 2.1: The Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to limit, reduce, modify and control human activities that result, or are likely to result, in adverse effects on the global climate.

- IPCC: See under item 2.1.

2.3. Obligation to take appropriate action in pursuance of the long term global objective.

One of the first steps:
- **Stabilisation of carbon dioxide emissions at 1990 levels by a year to be agreed upon;**
- **Obligations should be equitably differentiated according to countries.**

- UK Art 2.1: See under item 2.2.

- FRG 2: The Contracting Parties should commit themselves to undertake without delay and in the interest of prevention, on the basis of the best available technology, suitable measures.

- for the effective limitation / reduction of the emissions of anthropogenic climate-relevant gases, in particular CO_2, CH_4, N_2O and NO_2, CO and VOC as precursors of tropospheric ozone
- for the maintenance and creation of CO_2 storages and sinks, as well as
- to develop strategies and measures to adapt to changes in the climate and to reduce climate-induced damage.

The various countries share of reduction or degree of reduction in climate-relevant emissions as well as the provisions for the compliance with and creation of CO_2 storages and sinks are to be determined by a scheme which takes into account the major criteria.
Account is to be taken of the economic and social developments of each individual country.

- FRG 3: The Contracting Parties should commit themselves to carry out the measures to limit and reduce emissions of anthropogenic climate-relevant gases in such a way that

a) the global energy induced, climate-relevant emissions of in particular carbon dioxide (CO_2), methane (CH_4), nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC) as precursors of tropospheric ozone are considerably reduced.
This requires

- a stabilization of the global energy-induced CO_2 emissions at their 1990 level by the year 2000 and first steps towards their reduction in the years 2005 and 2010 as well as
- a definition of the objectives and measures to reduce and limit further energy-induced emissions, in particular CH_4, NO_x, CO and VOC emissions.

This requires immediate and drastic measures of the part of the developed countries in order to stabilise and reduce their emissions.

Countries which until now have had a relatively low energy consumption and thus low emissions, but which will continue to grow because of their economic and social situation can set appropriate objectives and strategies for their development. They ought, however, to play their part in limiting growth by accepting the obligation to strive for more efficient energy use in their economic activity and thus for a limitation of their emissions.

b) emissions are to be limited and reduced in particular in the following areas:

- the use of fossil fuels in the incineration process,

- in the preceding processes, particularly in methane emissions from coal mining (mine gas), oil extraction, the extraction of natural gas and leakages during the transportation and distribution of natural gas,

- by measures to reduce energy use in the final consumption process, i.e. domestic use, smallscale use, industry, traffic and transport,

- as well as measures in the area of waste/garbage/recycling.

Measures are in future taken both in the developed and - adjusted to their respective circumstances - the developing countries to reduce and/or limit emissions of climate-relevant trace gases, initially in particular in view of more rational energy generation and use, energy saving as well as increased use of renewable energy sources.

c) further climate-relevant emissions, in particular CH_4 and N_2O emissions from agriculture are to be limited and reduced.

- EC 6: EC Member States and other industrialized countries should take urgent action to stabilize or reduce their CO_2 and other GHG emissions. Stabilization of CO_2 emissions should be in general achieved by the year 2000 at 1990 level, although the Council notes that some Member countries according to their programmes are not in a position to commit themselves to this objective. In this context countries with, as yet, relatively low energy requirements, which can be expected to grow in step with their development, may need targets and strategies which can accommodate that development, while improving the energy efficiency of their economic activities.

- EC 4: OECD, Eastern countries and developing countries have common but differentiated responsibility in dealing with the problem.

- IPCC: The adoption of appropriate measures to protect against the adverse effects of climate change, to limit, reduce, adapt to and, as far as possible, prevent climate change in accordance with the means at the disposal of individual countries and their scientific and technical capabilities; and to avoid creating other environmental problems in taking such measures.

2.4. Obligation for the Parties to prepare, within a given time frame, national and/or regional integrated programmes or strategies to combat global warming. At this point, it will have to be discussed whether policy instruments contained in these programmes or strategies should be further qualified, especially economic, fiscal and financial instruments.

- FRG 5: The contracting Parties should commit themselves to develop strategies and measures to adjust to changes in the climate and to reduce climate-induced damage.
This includes in particular strategies and measures in the fields of coastal protection, agriculture, nature conservation, soil conservation, water protection, protection of human settlement, etc.

- EC 11: Economic and fiscal instruments, e.g. taxes or charges, may play an important role in achieving structural changes in the energy sector aimed at limiting or reducing CO_2 and other GHGs emissions in the most efficient manner.

2.5. Obligation to aim at energy conservation and rational use of energy and development of renewable energy sources. [Criteria to be discussed].

- FRG 3: See item 2.3.

- Neth2a: Promoting efficient use of energy, development of lower and non-greenhouse gas emitting energy technologies and paying special attention to safe and clean new and renewable sources of energy.

2.6. Obligation to conduct environmental impact assessments in order to avoid taking measures which cause or could cause other adverse social and environmental effects and risks.

- FRG 8: The Contracting Parties shall ensure that the measures they take do not lead to any non-sustainable ecological or social damage and at the same time as far as possible reduce and/or minimise further adverse consequences and risks. The Contracting Parties are first of all to examine the environmental compatibility of the measures to be taken.

- IPCC: Should provision be made for environmental impact assessments of planned activities that are likely to cause significant climate change as well as for prior notice of such activities?

2.7. Obligation to refrain from subsidising activities, inter alia, in the energy domain, which contributes to global warming.

- No reference.

2.8. Obligation to conserve and to aim at increasing natural carbon reservoirs and sinks and to develop integrated strategies to this end.

- FRG 4: With regard to the maintenance and creation of CO_2 storages and sinks, the Contracting Parties should commit themselves within the framework of the Convention

  a) to conserve their forests as extensively as possible in their best possible structure by counteracting the causes of the threat posed to them, i.e. the emission of pollutants or environmentally damaging use;

  b) to set differentiated objectives and measures to reduce the annual deforestation rate with a view to ending forest destruction completely;

  c) to carry out site-based afforestation and regeneration measures in order to create additional forests as CO_2 sinks and to improve the CO_2 bonding process in existing forests;

  d) to quantify the forest area required for reasons of climate protection and to use this figure as an objective for all activities in the field of forest conservation and afforestation;

e) to develop measures with regard to further CO_2 sinks and storages (in particular oceans and seas).

- EC 12: Forest destruction contributes to global warming through the emission of CO_2, methane and other gases. The rate of deforestation must be reduced and the potential of the world forests to act as a sink for greenhouse gases must be increased through vigorous programmes of forest protection and development. Such programmes should include the strengthening or development of measures for the protection of forests against atmospheric pollution and fires as well as for reforestation and afforestation in suitable areas of Europe, such as the arid Mediterranean areas, and in other suitable areas of the world.

2.9. INTERNATIONAL COOPERATION: Obligation to cooperate in the following areas:

2.9.1. Research and systematic observations, modelling.

- UK Art 2: To this end the Parties shall, in a spirit of good neigbourliness, within the means at their disposal and in accordance with their scientific and technical capabilities:

Co-operate by means of systematic observations, research and information exchange in order better to understand and assess the effects of human activities on the global environment and the effects on human health, socio-economic conditions and the environment of changes in the global climate.

- UK Art 3: 1) The Parties undertake to initiate and co-operate in, directly or through competent international bodies, the conduct of research and scientific assessment on:

a) The physical, chemical and biological processes they may affect the global climate;

b) The identification of the substances, practices, processes and activities that have, or are likely to have, adverse effects on the global climate and of appropriate strategies for controlling them;

c) The methods of predicting future changes in the global climate that are due to human activities, including the preparation of improved climate models, particularly for regional climates;

d) The techniques for monitoring and measuring greenhouse gas emission rates and their uptake by sinks;

e) The impacts, in particular in low-lying coastal areas, on human health and the environment, as well as the social and economic costs and benefits of changes to the global climate;

f) The costs and benefits of implementing effective strategies to limit, reduce, modify and control human activities that result in adverse effects on the global climate;

g) Alternative substances, technologies and practices for mitigating the adverse effects of change in the global climate arising from human activities, including greater efficiency in energy use.

Such research and scientific assessment shall be carried out in the light of the considerations specified in annexes I and II.

2) The Parties undertake to promote or establish, as appropriate, directly or through competent international bodies and taking fully into account national legislation and relevant ongoing activities at both the national and international levels, joint or complementary programmes for systematic observation of the state of the global climate and other relevant parameters, as elaborated in annex I.

3) The Parties undertake to co-operate, directly or through competent international bodies, in ensuring the collection, validation and transmission of research and observational data on changes in the global climate through appropriate world data centres in a regular and timely fashion.

- FRG 12: The Contracting Parties shall commit themselves to continue or initiate research and scientific assessments. This holds in particular true for research on the causes or climate changes, for a better understanding of the climatic and atmospheric system, on the implementation of a difference climate on man and his natura, socio-economic and technical environment as well as on regional peculiarities or climate change, the potential to reduce climate-relevant trace gas emissions and strategies for their reduction and prevention.

- FRG 13: The Contracting Parties shall commit themselves to participate in international monitoring programmes such as the "Global Atmospheric Watch" by WMO, to introduce new monitoring programmes in line with the provisions of the Convention and to improve the availability and international exchange of data. International regulations for monitoring and measuring techniques as well as the evaluation of data should be adopted.

- Neth2e: Enhancing atmospheric, oceanic and terrestrial observation networks, particularly in recipient countries, to facilitate conducting research, monitoring and assessment of climate change and the impact of those countries.

- IPCC: Co-operation by means of research, systematic observation and information exchange in order to understand better and assess the

effects of human activities on the climate and the potential adverse environmental and socio-economic impacts that could result from climate change, respecting national sovereignty.

2.9.2. Formulation, coordination or harmonization of policies, strategies, and measures.

- UK Art 2.2(b): Adopt and, where necessary, strengthen legislative or administrative measures and co-operate in formulating and harmonising appropriate policies and strategies to limit, reduce, adapt to and, as far as practicable, prevent climate change.

- IPCC: Co-operation in the formulation and harmonisation of policies and strategies directed at limiting, reducing, adapting to and as far as possible, preventing climate.

2.9.3. Development, coordination or harmonisation of market policy instruments.

- FRG 11: The Contracting Parties shall regard the application of economic and fiscal instruments as appropriate. In this respect, the fullest use of possible should be made of existing possibilities for achieving signalising effects.

2.9.4. Formulation, coordination or harmonisation of energy efficiency standards.

- No reference

2.9.5. Internalisation of external costs in energy prices.

- No reference

2.9.6. Promotion of the development and transfer of environmentally sound technologies, and technical as well as financial assistance.

- UK Art 2.2(g): Develop appropriate mechanisms for the purposes of providing financial and technical assistance, including the transfer of technologies, to facilitate the fulfillment by the developing countries of their obligations under this Convention and protocols to which they are party.

- FRG 10: The Contracting Parties shall declare their readiness to cooperate in the development and transfer of knowledge and technology in line with their national legislation, regulations and practice.

- Neth2b: Arranging expeditious transfer of the best available environmentally sound technology on a fair and most favourable basis to recipient countries and promoting rapid development of such technology in these countries.

- IPCC: The encouragement of the development and transfer of relevant technologies, as well as the provision of technical and financial assistance, taking into account the particular needs of developing countries to enable them to fulfil their obligations.

2.9.7. Sustainable forest management, reduction of deforestation, and afforestation.

- FRG:See under item 2.8.

- Neth2c: Sustainable forest management practices and agricultural techniques which reduce greenhouse gas emissions.

- Neth:See annex 2, Main elements for a protocol on forest.

- EC 12: See under item 2.8.

2.9.8. Preparation for anticipated climate change.

- FRG:See under item 2.4.

- Neth2f: Coping with negative impacts due to sealevel rise resulting from climate change caused by man made activities.

2.9.9. Pursuit of policies aimed at sustainable development.

- UK: Preamble.

- FRG:Preamble.

2.9.10. Promotion of education and information.

- UK Art 2.2d:
  Promote public education and awareness of the environmental and socio-economic impacts of climate change and, in particular, of emissions of greenhouse gases.

- FRG 17: Public relations, training and education.

- Neth2g: Enhancing the capacity of recipient countries to develop programs to address climate change, including research and development activities and public awareness and education.

- IPCC: The encouragement of and co-operation in the promotion of public education and awareness of the environmental and socio-economic impacts of greenhouse gas emissions and of climate change.

2.9.11. Compliance with international trade agreements.

- Not referred to.

3. SPECIFIC PROVISIONS

3.1. Principles; e.g., recognition of the different circumstances of countries, including the particular circumstances of developing countries and countries with economies in transition.

- EC 4: It is in the interest of the international community, and in this framework, of the European Community, to reach an international agreement on the policy approach to protect the world climate, bringing

together as many countries as possible.

OECD, Eastern countries and developing countries have common but differentiated responsibility in dealing with the problem.

3.2. **Obligation to cooperate in the development of funding mechanisms, particularly through existing mechanisms, for the transfer of additional financial and technological resources to the above mentioned countries in order to assist them in meeting the obligations under the Convention and its related protocols.**

- UK Art 2.2 (e);
  Develop appropriate mechanisms for the purposes of providing financial and technical assistance, including the transfer of technologies, to facilitate the fulfillment by the developing countries of their obligations under this Convention and protocols to which they are party.

- FRG 9: The developed countries shall declare their readiness to support developing countries in the participation of the present Convention to the extent that their own economic performance does not suffice to comply with obligations arising from this agreement and its protocols. They shall provide adequate and additional funds.

- Neth:See annex 3, Financial aspects.

- EC 13: It be recognised that industrialized countries and developing countries have a common but differentiated responsibility in dealing with problems arising from climate change and the need for the developed countries to assist developing countries to play their full part in an international response to climate change, through the provision of financial resources and appropriate transfer of environmentally sound technologies.

- IPCC: The encouragement of the development and transfer of relevant technologies, as well as the provision of technical and financial assistance, taking into account the particular needs of developing countries to enable them to fulfill their obligations.

- IPCC: A provision on funding mechanisms.

3.3. **Development and transfer of technology and technical assistance.**

- UK Art 4.2:
  The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account the level of their development in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge relevant to scientific and technical research. Such co-operation shall be carried out particularly through:

  a) The supply of necessary equipment and facilities for research and systematic observations, and

  b) Appropriate training of scientific and technical personnel.

- FRG 10: See under item 2.9.6.

- Neth2b: See under item 2.9.6.

- IPCC: Co-operation by means of research, systematic observations and information exchange in order to understand better and assess the effects of human activities on the climate and the potential adverse environmental and socio-economic impacts that could result from climate change, respecting national sovereignty.

- IPCC: While the issue of technology has been addressed in the section on General Obligations, it might be considered desirable to include separate provisions on technology transfer and technical co-operation. Such provisions could call upon the parties to promote the development and transfer of technology and technical co-operation, taking into account particularly the needs of developing countries, to enable them to take measures to protect against the adverse effects of climate change, to limit, reduce and, as far as possible, prevent climate change, or to adapt to it.

3.4. Transitional provisions and specific criteria for developing countries and for countries whose economies are in transition.

- Not directly referred to.

4. INFORMATION EXCHANGE

4.1. Exchange of scientific, statistical, technical, socio-economic, legal, and other relevant information.

- UK Art 4.1:
  The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention as further elaborated in annex II. Such information shall be supplied to the Secretariat which shall ensure that information regarded as confidential by the supplying Party is not disclosed and is, where so requested by the supplying Party, aggregated to protect its confidentiality before it is made available to all Parties.

- FRG 14: Obligation to exchange information on scientific, economic and technological development as well as on climate-related strategies and policies in line with their national legislation, regulations and practice.

- IPCC: Precedents would suggest the inclusion of a provision for the transmission of information through the Secretariat to the Conference of the Parties on measures adopted by them in implementation of the Convention and of protocols to which they are party. In an annex to the Vienna Convention, the types of information exchanged are specified and include scientific, technological, socio-economic, commercial and legal information.

5. REPORTING

5.1. Obligation to provide periodic reports on progress in implementation of the goals and obligations of the Convention and its related protocols.

- UK Art 5:
  The Parties shall transmit, through the Secretariat, to the Conference of the Parties established under article 6 information on the measures

adopted by them in implementation of the Convention and of protocols to which they are party in such form and at such intervals as the meetings of the parties to the relevant instrument may determine.

- FRG 15: Annual reporting by the Contracting Parties on the progress made in fulfilling the obligations provided by the Convention and protocols.

- IPCC: See under item 4.1.

6. RESEARCH, SYSTEMATIC OBSERVATIONS AND MONITORING

6.1. Intensified global data collection and research efforts through international programmes (WCP, IGBP, etc).

- UK Art 3: See under item 2.9.1.

- FRG 12.1[illegible]: See under item 2.9.1.

- IPCC: **It would appear to follow general practice to include provision for co-operation in research and systematic monitoring. In terms of research, each party might be called upon to undertake, initiate, and/or co-operate in, directly or through international bodies, the conduct of research on and analysis of:**

  - **physical and chemical processes that may affect climate;**
  - **substances, practices, processes and activities that could modify the climate;**
  - **techniques for monitoring and measuring greenhouse gas emission rates and their uptake by sinks;**
  - **improved climate models, particularly for regional climates;**
  - **environmental, social and economic effects that could result from modification of climate;**
  - **alternative substances, technologies and practices;**
  - **environmental, social and economic effects of response strategies;**
  - **human activities affecting climate;**
  - **coastal areas with particular reference to sea-level rise;**
  - **water resources; and**
  - **energy efficiency.**

6.2. Collection, analysis and dissemination of pertinent information and data.

- UK Art 3.3: See under item 2.9.1.

- Overlaps to a large extent item 6.1.

6.3. **Improvement of the capability of developing countries to collect and assess climate information, prepare emissions inventories, assess possible impacts of global warming, participate in international research programmes.**

- Neth2e: See under item 2.9.1.

6.4. **Initiation/intensification or continuation of research efforts in other domains, such as socio-economic causes and effects of global warming, impacts of the increasing greenhouse effect on the environment and society, and strategies to reduce emissions of greenhouse gases and their socio-economic implications.**

- UK Art 3.1 e,f,g: See under item 2.9.1.

- FRG 12: See under item 2.9.1.

6.5. **Definition of the possible role of IPCC.**

- Not referred to.

7. INSTITUTIONAL ASPECTS: CONFERENCE OF THE PARTIES, EXECUTIVE COMMITTEE, SECRETARIAT AND REVIEW PANELS

7.1. **Continuous review of implementation and compliance with the goals and obligations of the Convention and its related protocols.**

7.1.1. **Review of implementation.**

- UK Art 6.4:
  The Conference of the Parties shall keep under continuous review the implementation of this Convention, and take the decisions necessary to ensure its effective operation. To this end, it shall:

- IPCC: The Conference of the Parties may, among other things: keep under continuous review the implementation of the Convention and take appropriate decisions to this end; review current scientific information; and promote harmonization of policies and strategies directed at limiting, reducing, adapting to and, as far as possible, preventing climate change.

7.1.2. **Compliance.**

- Uk Art 6.4 (d):
  Develop appropriate procedures for monitoring compliance with the provisions of this Convention.

- FRG 16: Compliance with the agreement.

7.2. **Periodical review of available scientific, environmental, technical and economic information with respect to climate and climate change.**

- UK Art 6.4 (b):
  Review the scientific information concerning adverse effects on the global climate and on the likely consequences of such adverse effects.

- IPCC: See under item 7.1.1.

7.3. **Definition and revision of the long term global objective and targets.**

- Not referred to.

7.4. **Promotion of coordination or harmonisation of policies, strategies, and measures for controlling and preventing activities which cause adverse effects of climate change.**

- UK Art 6.4 (c):
  Promote, in accordance with article 2, the harmonisation of appropriate policies, strategies and measures for controlling human activities that cause or are likely to cause adverse effects on the global climate, and make recommendations on any other measures necessary for the efficient operation of this Convention.

7.5. **Adoption of programmes for research, systematic observation, scientific and technical cooperation, technology transfer, exchange of information, promotion of public awareness.**

- UK Art 6.4 (e):
  Adopt, in accordance with articles 3 and 4, programmes for research, systematic observations, scientific and technological co-operation, the exchange of information and the transfer of technology and knowledge.

- IPCC: See under item 6.1.

7.6. **Cooperation with relevant international organisations, e.g., WMO and UNEP.**

- UK Art 6.4 (k):
  Seek where appropriate the services of competent international bodies and scientific committees, in particular the World Meteorological Organisation and the World Health Organisation, in scientific research, systematic observations and other activities pertinent to the objectives of this Convention, and make use as appropriate of information from those bodies and committees.

- IPCC: Co-operation with competent international organisations effectively to meet the objectives of the Convention.

7.7. **Arrangements for the cooperation with Non-Governmental- Organisations.**

- UK Art 6.5:
  The United Nations, its specialised agencies and the International Atomic Energy Agency, as well as any State not party to this Convention, may be represented at meetings of the Conference of the Parties by observers. Any other body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to changes to the global climate which has informed the Secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

7.8. Evaluation and revision of the Convention and its related protocols.

- UK Art 6.4:

  (f) Consider and adopt, as required, in accordance with articles 9 and 10, amendments to this Convention and its annexes;

  (g) Consider amendments to any protocol, as well as to any annexes, thereto, and, if so decided, recommend their adoption to the Parties to the protocol concerned;

  (h) Consider and adopt, as required, in accordance with article 10, additional annexes to this Convention;

  (l) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

- IPCC: See under item 7.1.1.

8. PROTOCOLS/ ANNEXES

8.1. Implementation of the Convention through Protocols/ Annexes.

- UK Art 8:

  1) The Conference of the Parties may at a meeting adopt protocols pursuant to article 2.

  2) The text of any proposed protocol shall be communicated to the Parties by the secretariat at least three months before such a meeting.

- UK Art 6.4 (e):
  Consider and adopt, as required, protocols in accordance with article 8.

- UK Art 6.4 (h): See under item 7.8.

- FRG 6: The Contracting Parties should commit themselves to drawing up protocols to develop further the obligations set out in II.3. to 5. on

  - the reduction and limitation of climate-relevant emissions,
  - the conservation and creation of CO_2 storages and sinks and
  - the adjustment to climate change and the prevention and containment of climate-induced damage.

  These protocols are to put the necessary measures on a more concrete footing.

- IPCC: The negotiating parties may wish the Convention to provide for the possibility of annexes and/or protocols. Annexes might be concluded as integral parts of the Convention, while protocols might be concluded subsequently (as in the case of the Montreal Protocol to the Vienna Convention on Protection of the Ozone Layer). While it is recognised that the Convention is to be all-encompassing, the negotiating parties will have to decide whether greenhouse gases, their sources and sinks, are to be dealt with: individually, in groups or comprehensive; in

annexes or protocols to the Convention.

8.2. **Possible Protocols/ Annexes on programmes for actions setting targets for the limitation and/or reduction of net greenhouse gas emissions, in particular CO_2.**

They might cover the following issues:

8.2.1. Emissions of CO2 and/ or other greenhouse gases, including funding mechanisms;

- FRG 6: See item 8.2.

- Neth:See annex 1, Main elements for inclusion in a Protocol concerning the control of GHG-emissions.

8.2.2. Sustainable forest management/ reforestation/ afforestation, including funding mechanisms.

- FRG 6: See under item 8.2.

- Neth:See annex 2, Main elements for a Protocol on Forests.

8.2.3. Development and transfer of technology.

- Not referred to.

8.2.4. Science issues.

- Uk Art 3.1 and 2: See under item 6.1.

Annex 1

Main elements for inclusion in a Protocol concerning the control of GHG-emissions

(Suggested by the Netherlands delegation)

- We prefer a Protocol concerning the control of GHG-emissions.
  * Theoretically a comprehensive approach of the GHG's CO_2, CH_4, N_2O, tropospheric ozone, CFCs and halons would be preferable. However, the control of the emission of CFCs and halons is being dealt with in the Montreal Protocol. Of the remaining GHGs, our knowledge concerning CO_2 is largest at present. Therefore concrete agreements concerning CO_2 are necessary now. This approach would make it possible to adopt a different approach, if required, for the GHGs not controlled by the Montreal Protocol.
- Our aim is to agree on a concrete reduction of the CO_2 emission in a subsequent phase. Moreover it is important that in a next phase we start with controlling the other GHGs not controlled by the Montreal Protocol (e.g. to start with a stabilization of the emission of CH_4 and N_2O for highly industrialized countries).

Protocol concerning the control of GHG-emissions

- The lack of scientific proof should be no reason to postpone measures. "Action now", referring to the Bergen Conference and the SWCC Precautionary Principle. (cost-effective measures, taking into account the different socio-economic consequences).
- Introduction of the principle of exchange between different GHGs (in CO_2-equivalents) "in order to allow flexibility while still achieving overall improvement". Elaboration however at a later stage.
- The ultimate target:
  * Stabilisation of GHG-concentrations at such a level that a dangerous impact on climate can be avoided;
  * Acceptation of the principle of a long term quality target for the climate.
- Preliminary target:
  * Temperature increase: < 0.2 degr. C per decade, max. 2 degr. C above pre-industrial,
  * SLR: < 0.05 m per decade, max 0.5 m,
  * GHG-concentration well below a CO_2-equivalent doubling.
- Recognize that further elaboration is required.
- Formulation as soon as possible of GHG-emission targets.
- Acceptation of the principle of a differential approach:
  * Differentiated commitments of e.g. industrialised and developing countries.
- Adoption of a phased/differentiated approach.
- During the first phase a CO_2 stabilisation target:
  * Stabilisation in the year 2000 at 1990-level, on the basis of the principle of burden sharing.

- During the next phase a CO_2-reduction target:
  * Further reduction in the year 2010 at 1990-level.

- An emission target for CH_4 and N_2O in highly industrialised countries (stabilisation as a first step).

- Adopt a paragraph in the protocol that e.g. in 1995 an additional Protocol be negotiated on CO_2 reduction targets.

Annex 2

Main elements for a protocol on forests

(Suggested by the Netherlands delegation)

1) Each country or group of countries should set in or before 1995 a target for the permanently absorbed amount of CO_2 in forests and trees. This target should be reached by the year 2050 using a step by step approach, taking into account:

   - a reference year (e.g. 1990),
   - the overall CO_2 target,
   - other relevant measures concerning CO_2 and the forestry situation and perspectives.

2) Each country should fix the amount of CO_2 that is absorbed in forests in the reference year (1990). This should be accomplished within a certain time frame (e.g. by 1995).

3) The CO_2-target concerning the absorption in forests should be "translated" into country targets in relation to the surface area and quality of the forests. These tasks should be accomplished by the year 2000.

4) In the interim, (until 2000) countries should aim at:
   - the conservation of existing forests,
   - the provision of afforestation when such conservation is not possible,
   - the improvement of forest management in relation to CO_2-absorption.

5) This will require:
   - provisions (preferably through existing organisations and fora) on monitoring, verification and coordination,
   - a monitoring system for the surface area and quality of forests,
   - research on the absorption of CO_2 by various types of forests,
   - financial resources for research and the facilitation of the implementation measures under (2) and (3) above,
   - a financial mechanism to compensate for the incentives taken by countries which are particularly active (through grants or through tradeable CO_2 emission rights).

Annex 3

Financial aspects to be considered in the context of a climate convention and related legal instruments (annexes, protocol, etc.)

(Suggested by Netherlands delegation)

Elements to be considered:

1) Finance and assign clearing house functions to:

   a) Assist recipient[1] countries through country-specific studies and other technical co-operation, to identify their needs in relation to climate change;

   b) Facilitate technical co-operation to meet these identified needs;

   c) Strengthen institutions, develop human resources, distribute information and undertake related activities for the benefit of recipient countries.

2) Funds should become available through relevant channels for the purpose of:

   a) Promoting efficient use of energy, development of lower and non-greenhouse gas emitting energy technologies and paying special attention to safe and clean new and renewable sources of energy;

   b) Arranging expeditious transfer of the best available environmentally sound technology on a fair and most favourable basis to recipient countries and promoting rapid development of such technology in these countries;

   c) Sustainable forest management practices and agricultural techniques which reduce greenhouse gas emissions;

   d) Limiting and reducing greenhouse gas emissions for agricultural activities;

   e) Enhancing atmospheric, oceanic and terrestrial observation networks, particularly in recipient countries, to facilitate conducting research, monitoring and assessment of climate change and the impact on those countries;

   f) Coping with negative impacts due to sealevel rise resulting from climate change caused by man made activities;

   g) Enhancing the capacity of recipient countries to develop programs to address climate change, including research and development activities and public awareness and education;

   h) Co-operation with recipient countries to enable their full participation in international meetings on climate change.

3) Finance the secretarial services and related support costs.

4) Mechanisms/channels for disbursement of funds:

   a) Directly related to the execution of functions under the Convention;

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[1] In case differentiation of obligations under the convention is envisaged some non-developing countries might also be considered as recipient countries.

b) To be made available directly or indirectly for the purpose of implementing the objectives mentioned under 1 and 2

5) Role of relations to executing international organizations, agencies, programmes and banks, and regional banks.

PAPER NO. 7: NETHERLANDS

ADDENDUM

TO THE SHOPPING LIST FOR MAIN ELEMENTS FOR INCLUSION IN A FRAMEWORK CONVENTION ON CLIMATE CHANGE OR RELATED PROTOCOLS

- circulated informally by Austria and Switzerland -

AND

TO THE COMPILATION OF TEXTS RELATED TO MAIN ELEMENTS (SHOPPING LIST)

- circulated informally by the Netherlands delegation as an informal support paper compiled by experts -

Following the elaboration of the documents referred to above the Netherlands delegation has received an addendum worked out by some experts which specifies possible elements and a structure for a chapter on Institutional Aspects of a Framework Convention on Climate Change. The question of the content and of the structure of possible related legal instruments has, for the time being, been left aside.

This paper is being circulated as an addendum to the informal support paper submitted by the Netherlands delegation. The other delegations may find this addendum useful in the preparations of their positions on institutional aspects for the next INC session.

It may well become desirable to omit certain of the listed elements while introducing others and it whould be well understood that all parties involved in preparing the addendum have reserved their right to do so in the further course of the negotiating process.

Washington, February 13, 1991

Re: MAIN ELEMENTS OF A CLIMATE CONVENTION:

ADDENDUM ON INSTITUTIONAL ASPECTS

The issues presently listed under item 7 of the "Shopping list" and correspondingly in item 7 of the "Compilation of texts related to Main elements" should be dealt with in a separate chapter of the convention, covering the following issues in articles as listed below:

Chapter of institutional aspects	Reference to Shopping List and Text Compilation
1. Conference of the Parties (CP)	
1.1. Status of the CP : Supreme and Central Organ of the Climate Convention	
1.2. Establishment of CP	
1.3. Meetings of CP	
1.4. Resolutions and decisions of CP (based on consensus principle)	
1.5. [...]	
2. Specific tasks of the Conference of the Parties	
2.1. Continuous review of implementation and compliance	7.1
2.2. Periodic review of information with respect to climate change	7.2
2.3. Definition and revision of the long-term global objective and related targets	7.3
2.4. Coordination and harmonisation of policies, strategies and measures	7.4

2.5. Decisions on research and systematic observation, development and transfer of technologies, exchange of information, public awareness 75

2.6. Institutional questions —

2.7. Decisions on budget —

2.8. Evaluation, revision and further evolution of the Climate Convention and related protocols 78

2.9. [...]

3. Executive Committee (Council?) (ExC)

3.1. Status and working principles

3.2. Composition

3.3. Specific tasks

3.3.1. Annual report

3.3.2. Compliance enforcement:

At this point it will have to be considered if the principal task of compliance enforcement should be assigned to:

a. the Executive Committee

b. a special International Implementation Committee

c. the Conference of the Parties

d. a combination of the above-mentioned bodies

4. Secretariat

4.1. Status and working principles

4.2. Establishment/organization (using facilities of UNEP and WMO)

4.3. Place

4.4. Head of the Secretariat (procedures for nomination)

4.5. Specific tasks of the Secretariat

4.5.1. Preparation, organization and follow-up

a. Conference of Parties

b. Executive Committee

c. Scientific Advisory Committee

d. Other organs

4.5.2. Compilation of research and observation data

4.5.3. Budget management

5. Scientific Advisory Committee

5.1. General status (independence), tasks and working principles

5.2. Establishment and composition

5.3. Meetings

5.4. Specific tasks

5.4.1. Independent evaluation of scientific data

5.4.2. Recommendations on research and evaluation programmes

5.4.3. Support and assistance to Conference of Parties and Executive Committee (as may be requested by these bodies)

5.4.4. Reports to CP and ExC

5.5. Continued work on the issues hitherto dealt with by the IPCC (?)

6. Cooperation with other institutions

6.1. Principle of coordination

6.2. Specific provisions

6.2.1. UN-General Assembly : reports to UNGA (?)

6.2.2. Cooperation with relevant international organizations, particularly WMO,UNEP, FAO, UNESCO, World Bank (including participation of their representatives in the meetings of the CP and ExC; coordination meetings)

6.3. Relations with intergovernmental and regional bodies

6.4. Relations with non-governmental organizations [including accessibility of meetings, observer status in the Conference of the Parties and compliance mechanisms (?)]

7. Budgetary provisions (for the running expenses of the organs)

PAPER NO. 8: REPUBLIC OF KOREA

Comments of the Delegation of the Republic of Korea on Non-Papers Submitted by Certain Delegations at the First Session of the INC (February 1991, Washington, D.C.)

This paper is presented by the delegation of the Republic of Korea and contains general comments concerning non-papers which were submitted by certain delegations, including the Netherlands and Germany, at the First Session of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change. It does not represent the official views of the Government of the Republic of Korea on the overall scope of the Convention.

1. Taking into account the fact that the developed countries are responsible for a major part of emissions of greenhouse gases, actions aimed at stabilizing emissions of greenhouse gases should be initiated by the developed countries, and the difficulties of the developing countries in stabilizing their emissions of greenhouse gases should be fully considered, because their energy consumption will continue to increase in parallel with their economic growth.

2. The classification of countries simply as either developed or developing can overlook the unique situation of countries that are in various stages of development. In this regard, newly industrialized countries which have continued to expand greatly their energy consumption to achieve industrialization should be given special consideration as should Eastern European countries whose economies are in transition.

3. To this end, it will be necessary for all developing countries to pursue stabilization of GHG emissions within differentiated time frames according to their economic and technical capabilities.

4. To ensure the full participation of developing countries, without hindering their national development, a grace period for developing countries will be needed for stabilization of GHG emissions.

5. Developed countries should undertake measures to provide developing countries with financial resources and environmentally-sound technologies in order that developing countries may sooner stabilize GHG emissions.

PAPER NO. 9: UNITED KINGDOM

DRAFT FRAMEWORK CONVENTION ON CLIMATE CHANGE

The United Nations General Assembly Resolution which established the negotiating Committee for the framework convention on climate change highlighted the Report of the IPCC Legal Measures Group as an important basis for the negotiations.

As joint coordinator of the Topic Group on Legal Measures, the United Kingdom has undertaken to write up the consensus elements of that Group's report in the form of a legal text.

This is presented as an indication of the shape and scope which a convention based on these consensus elements would possess. It does not represent the views of the United Kingdom on the overall scope of the Convention. Countries taking part in the negotiations, including the United Kingdom, will have views on what other elements should be included in the framework convention. However, as it contains elements already subject to a degree of international agreement, the United Kingdom feels that the draft text would serve as a useful basis for discussions and the framework into which other substantive elements could be placed as and when they are agreed.

DRAFT PREPARED BY THE UNITED KINGDOM

FRAMEWORK CONVENTION ON THE PROTECTION OF THE GLOBAL CLIMATE

The Parties to this Convention,

Recognising the need of mankind for an environment of a quality that permits a life of dignity and well-being for present and future generations;

Acknowledging that change in the Earth's climate is a common concern of mankind since climate is an essential condition that sustains life;

Concerned that emissions from human activities are substantially increasing atmospheric concentrations of greenhouse gases, and that these increases will result in additional warming of the Earth's surface and thus adversely affect mankind through shifts in rainfall patterns, increased climate instability and rises in sea level, thereby threatening present and future generations of mankind;

Aware of the potentially severe social and economic consequences, as well as the consequences for human health and the environment, of such adverse effects;

Recalling Resolution 43/53 of 6th December 1988 by which the General Assembly of the United Nations determined that action should be taken to deal with climate change in a

global framework and endorsed the establishment of the Intergovernmental Panel on Climate Change;

Mindful of the pertinent provisions of the Declaration of the United Nations Conference on the Human Environment (Stockholm 1972), and in particular principle 21, which provides that States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and their responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction;

Noting the significant contribution made towards combating activities that result in adverse effects on the Earth's climate by the Vienna Convention for the Protection of the Ozone Layer, adopted on 22nd March 1985, and the Montreal Protocol on Substances that Deplete the Ozone Layer, adopted on 16th September 1987 and adjusted and amended on 29th June 1990 ;

Conscious of the valuable work that has already been instituted, particularly at the scientific level, on change in the global climate by the United Nations Environment Programme, the World Meteorological Organisation, the Intergovernmental Panel on Climate Change and other organisations, as well as under the auspices of individual States;

Endorsing the concept of sustainable development as a key test in promoting, in a consistent and balanced manner, long-term economic growth and the conservation of the environment for present and future generations;

Acknowledging the special circumstances and needs of developing countries, particularly for financial assistance and access to environmentally sound technologies;

Affirming that States have an obligation to protect and conserve the Earth's climate for the benefit of mankind and, to this end, have a duty to cooperate with each other in seeking to limit, reduce, modify and control human activities that result in, or are likely to result in, adverse effects on the Earth's climate;

Recognising the need for States to take responsibility for striving at the national, regional and global levels to limit or reduce their emissions of the greenhouse gases, to prevent activities that are likely significantly to affect the Earth's climate and to develop strategies for the absorption of greenhouse gases, such as through the protection and enhancement of greenhouse gas sinks, including the Earth's forests;

Taking into account that on the one hand most emissions affecting the atmosphere currently originate in industrialised countries in which the scope of change in practices is the greatest, and that on the other hand emissions from the developing countries are increasing and may need to grow further in order to meet their development requirements, thereby over time representing an increasingly significant percentage of global emissions, and that, therefore, action to prevent, limit and reduce such emissions and protect and to enhance sinks ought to take place in different time frames for different categories of countries;

Desiring to strengthen international cooperation on climate change through the development, within a global framework, of appropriate policies, including the preparation of

protocols on specific problems, and by means of increasing research into atmospheric science as well as into the social and economic aspects of climate change, systematic observations, cooperation on scientific, technical and legal matters and exchanges of information;

Reaffirming that where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

Have agreed as follows:

ARTICLE 1

Definitions

For the purposes of this Convention:

1. "Adverse effects" means changes in the global climate that have, or are likely to have, significant deleterious effects on human health or on natural and managed ecosystems, sea levels or materials useful to mankind.

2. "Climate" means the statistical description of weather taken over a period long enough to be generally representative of a locality.

3. "Greenhouse gases" means those anthropogenic emissions to the atmosphere arising from energy production and use, non-energy industrial activities (principally the production and use of chlorofluorocarbons), agricultural systems and changes in land-use patterns (including deforestation and the burning of bio-mass) that result in adverse effects on the global climate.

4. "Parties" means, unless the text indicates otherwise, Parties to this Convention.

5. "Protocols" means protocols to this Convention.

6. "Regional economic integration organisation" means an organisation constituted by sovereign States of a given region which has competence in respect of matters governed by this Convention or its protocols and has been duly authorised, in accordance with its internal procedures, to sign, ratify, accept, approve or accede to the instruments concerned.

7. "Sinks" means those natural processes by which greenhouse gases are removed from the atmosphere and are absorbed or contained in a manner that prevents their rerelease.

ARTICLE 2
General Obligations

1. The Parties shall take appropriate measures in accordance with the provisions of this Convention and of those protocols in force to which they are party to limit, reduce, modify and control human activities that result, or are likely to result, in adverse effects on the global climate.

2. To this end the Parties shall, in a spirit of good neighbourliness, within the means at their disposal and in accordance with their scientific and technical capabilities:

(a) Co-operate by means of systematic observations, research and information exchange in order better to understand and assess the effects of human activities on the

global environment and the effects on human health, socio-economic conditions and the environment of changes in the global climate;

(b) Adopt and, where necessary, strengthen legislative or administrative measures and co-operate in formulating and harmonising appropriate policies and strategies to limit, reduce, adapt to and, as far as practicable, prevent climate change;

(c) Co-operate in the formulation of agreed measures, procedures and standards with a view to the adoption of protocols and annexes;

(d) Promote public eduction and awareness of the environmental and socio-economic impacts of climate change and, in particular, of emissions of greenhouse gases.

(g) Develop appropriate mechanisms for the purposes of providing financial and technical assistance, including the transfer of technologies, to facilitate the fulfilment by the developing countries of their obligations under this Convention and protocols to which they are party;

(f) Co-operate with competent international bodies to implement effectively this Convention and protocols to which they are party.

3. The provisions of this Convention shall in no way affect the right of Parties to adopt, in accordance with international law, domestic or international measures additional to those referred to in paragraphs 1 and 2 above, nor shall they affect additional domestic or international measures already taken, or entered into, by a Party, provided that those measures are compatible with their

obligations under this Convention and any protocol to which they are party.

4. The Parties shall, in taking the measures referred to in paragraph 1 above, ensure that the implementation of these measures does not result in the creation of other types of environmental degradation.

ARTICLE 3

Research and Systematic Observation

1. The Parties undertake to initiate and co-operate in, directly or through competent international bodies, the conduct of research and scientific assessment on:

(a) The physical, chemical and biological processes that may affect the global climate;

(b) The identification of the substances, practices, processes and activities that have, or are likely to have, adverse effects on the global climate and of appropriate strategies for controlling them;

(c) The methods of predicting future changes in the global climate that are due to human activities, including the prepration of improved climate models, particularly for regional climates;

(d) The techniques for monitoring and measuring greenhouse gas emission rates and their uptake by sinks;

(e) The impacts, in particular in low-lying coastal areas, on human health and the environment, as well as the social and economic costs and benefits of changes to the global climate;

(f) The costs and benefits of implementing effective strategies to limit, reduce, modify and control human activities that result in adverse effects on the global climate;

(g) Alternative substances, technologies and practices for mitigating the adverse effects of changes in the global climate arising from human activities, including greater efficiency in energy use.

Such research and scientific assessment shall be carried out in the light of the considerations specified in annexes I and II.

2. The Parties undertake to promote or establish, as appropriate, directly or through competent international bodies and taking fully into account national legislation and relevant ongoing activities at both the national and international levels, joint or complementary programmes for systematic observation of the state of the global climate and other relevant parameters, as elaborated in annex I.

3. The Parties undertake to co-operate, directly or through competent international bodies, in ensuring the collection, validation and transmission of research and observational data on changes in the global climate through appropriate world data centres in a regular and timely fashion.

ARTICLE 4

Co-operation

1. The Parties shall facilitate and encourage the exchange of scientific, technical, socio-economic, commercial and legal information relevant to this Convention as further elaborated in annex II. Such information shall be supplied to the Secretariat which shall ensure that information regarded as confidential by the supplying Party is not disclosed and is, where so requested by the supplying party, aggregated to protect its confidentiality before it is made available to all Parties.

2. The Parties shall co-operate, consistent with their national laws, regulations and practices and taking into account the level of their development in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge relevant to scientific and technical research. Such co-operation shall be carried out particularly through:

(a) The supply of necessary equipment and facilities for research and systematic observations; and

(b) Appropriate training of scientific and technical personnel.

ARTICLE 5

Transmission of Information

The Parties shall transmit, through the Secretariat, to the Conference of the Parties established under article 6 information on the measures adopted by them in implementation of the Convention and of protocols to which they

are party in such form and at such intervals as the meetings of the parties to the relevant instrument may determine.

ARTICLE 6

Conference of the Parties

1. A Conference of the Parties is hereby established. The first meeting of the Conference of the Parties shall be convened by the Executive Director of the United Nations Environment Programme not later than one year after entry into force of this Convention. Thereafter, ordinary meetings of the Conference of the Parties shall be held at regular intervals to be determined by the Conference at its first meeting.

2. Extraordinary meetings of the Conference of the Parties shall be held at such other times as may be deemed necessary by the Conference, or at the written request of any Party, provided that, within three months of the request being communicated to them by the Secretariat, it is supported by at least one third of the Parties.

3. The Conference of the Parties shall by consensus agree upon and adopt rules of procedure and financial rules for itself and for any subsidiary bodies it may establish, as well as financial rules to determine the financial participation of the Parties under this Convention.

4. The Conference of the Parties shall keep under continuous review the implementation of this Convention, and take the decisions necessary to ensure its effective operation. To this end, it shall:

(a) Establish the form and the intervals for transmitting the information to be submitted in accordance with article 5 and consider such information as well as reports submitted by any subsidiary body;

(b) Review the scientific information concerning adverse effects on the global climate and on the likely consequences of such adverse effects;

(c) Promote, in accordance with article 2, the harmonisation of appropriate policies, strategies and measures for controlling human activities that cause or are likely to cause adverse effects on the global climate, and make recommendations on any other measures necessary for the efficient operation of this Convention;

(d) Develop appropriate procedures for monitoring compliance with the provisions of this Convention;

(e) Adopt, in accordance with articles 3 and 4, programmes for research, systematic observations, scientific and technological co-operation, the exchange of information and the transfer of technology and knowledge;

(f) Consider and adopt, as required, in accordance with articles 9 and 10, amendments to this Convention and its annexes;

(g) Consider amendments to any protocol, as well as to any annexes, thereto, and, if so decided, recommend their adoption to the Parties to the protocol concerned;

(h) Consider and adopt, as required, in accordance with article 10, additional annexes to this Convention;

(i) Consider and adopt, as required, protocols in accordance with article 8;

(j) Establish such subsidiary bodies as are deemed necessary for the implementation of this Convention;

(k) Seek where appropriate the services of competent international bodies and scientific committees, in particular the World Meteorological Organisation and the World Health Organisation, in scientific research, systematic observations and other activities pertinent to the objectives of this Convention, and make use as appropriate of information from those bodies and committees;

(l) Consider and undertake any additional action that may be required for the achievement of the purposes of this Convention.

5. The United Nations, its specialised agencies and the International Atomic Energy Agency, as well as any State not party to this Convention, may be represented at meetings of the Conference of the Parties by observers. Any other body or agency, whether national or international, governmental or non-governmental, qualified in fields relating to changes to the global climate which has informed the Secretariat of its wish to be represented at a meeting of the Conference of the Parties as an observer may be admitted unless at least one-third of the Parties present object. The admission and participation of observers shall be subject to the rules of procedure adopted by the Conference of the Parties.

ARTICLE 7

Secretariat

1. The functions of the Secretariat shall be:

(a) To arrange for and service meetings provided for in articles 6, 8, 9 and 10;

(b) To prepare and transmit reports based upon information received in accordance with articles 4 and 5, as well as upon information derived from meetings of subsidiary bodies established under article 6;

(c) To perform the functions assigned to it by any protocol;

(d) To prepare reports on its activities carried out in implementation of its functions under this Convention and present them to the Conference of the Parties;

(e) To ensure the necessary co-ordination with other relevant international bodies, and in particular to enter into such administrative and contractual arrangements as may be required for the effective discharge of its functions;

(f) To perform such other functions relevant to the purposes of this Convention as may be determined by the Conference of the Parties.

2. The Secretariat functions will be carried out on an interim basis by the United Nations Environment Programme until the completion of the first ordinary meeting of the Conference of the Parties held pursuant to article 6. At its first ordinary meeting, the Conference of the Parties shall designate the Secretariat from amongst those existing

competent international organisations which have signified their willingness to carry out the Secretariat functions under this Convention.

ARTICLE 8
Adoption of Protocols

1. The Conference of the Parties may at a meeting adopt protocols pursuant to article 2.

2. The text of any proposed protocol shall be communicated to the Parties by the secretariat at least three months before such a meeting.

ARTICLE 9
Amendment of the Convention or Protocols

1. Any Party may propose amendments to this Convention and any Party to a protocol may propose amendments to that protocol. Such amendments shall take due account, inter alia, of the present state of scientific and technical knowledge.

2. Amendments to this Convention shall be adopted at a meeting of the Conference of the Parties. Amendments to any protocol shall be adopted at a meeting of the Parties to the protocol in question. The text of any proposed amendment to this Convention or to any protocol, except as may otherwise be provided in such protocol, shall be communicated to the Parties to the instrument in question by the Secretariat at least three months before the meeting at which it is proposed for adoption. The Secretariat shall also communicate proposed amendments to the signatories to the Convention for information.

3. The Parties to the instrument in question shall make every effort to reach agreement on any proposed amendment to this Convention or a Protocol by consensus. If all efforts at consensus have been exhausted, and no agreement reached, the amendment shall as a last resort be adopted by a two-thirds majority vote of such Parties present and voting at the meeting, and shall be submitted by the Depositary to all such Parties for ratification, acceptance or approval.

4. Instruments of ratification, acceptance or approval of amendments shall be deposited with the Depositary. Amendments adopted in accordance with paragraph 3 above shall enter into force between parties having accepted them on the ninetieth day after the day of receipt by the Depositary of notifiction of their ratification, acceptance or approval by at least two thirds of the Parties to this Convention or a protocol thereto, unless otherwise provided in such protocol or in the amending instrument itself. The amendments shall enter into force for any other Party on the ninetieth day after that Party deposits its instrument of ratification, acceptance or approval of the amendments.

5. For the purposes of this article, "Parties present and voting" means Parties present and casting an affirmative or negative vote.

ARTICLE 10
Adoption and Amendment of Annexes

1. The annexes to this Convention or to any protocol shall form an integral part of this Convention or of such protocol, as the case may be, and, unless expressly

provided otherwise, a reference to this Convention or its protocols constitutes at the same time a reference to any annexes thereto. Such annexes shall be restricted to scientific, technical and administrative matters.

2. Except as may be otherwise provided in any protocol with respect to its annexes, the following procedure shall apply to the proposal, adoption and entry into force of additional annexes to this Convention or of annexes to a protocol:

(a) Annexes to this Convention or any protocol shall be proposed and adopted according to the procedure laid down in article 9, paragraphs 2 and 3;

(b) Any Party that is unable to accept an additional annex to this Convention or an annex to any protocol to which it is party shall so notify the Depositary, in writing, within three months from the date of the communication of the adoption by the Depositary. The Depositary shall without delay notify all Parties of any such notification received. A Party may at any time substitute an acceptance for a previous declaration of objection and the annex in question shall thereupon enter into force for that Party;

(c) On the expiry of three months from the date of the circulation of the communication by the Depositary, the annex shall become effective for all Parties to this Convention or to the protocol concerned that have not submitted a notification in accordance with the provision of subparagraph (b) above.

3. The proposal, adoption and entry into force of amendments to annexes to this Convention or to any protocol shall be subject to the same procedure as for the proposal,

adoption and entry into force of annexes to the Convention or annexes to a protocol. Annexes and amendments thereto shall take due account, inter alia, of relevant scientific and technical considerations.

4. If an additional annex or an amendment to an annex involves an amendment to this Convention or to any protocol, the additional annex or amended annex shall not enter into force until such time as the amendment to this Convention or to the protocol concerned enters into force.

ARTICLE 11
Settlement of Disputes

1. In case of a dispute between Parties as to the interpretation or application of or compliance with this Convention or any protocol thereto, the Parties concerned shall seek a settlement of the dispute through negotiation or any other peaceful means of their own choice.

2. If the Parties concerned cannot settle their dispute through the means mentioned in the preceding paragraph, the dispute, if the parties to the dispute so agree, shall be submitted to the International Court of Justice or to arbitration under the conditions set out in annex III. However, failure to reach common agreement on submission of the dispute to the International Court of Justice or to arbitration shall not absolve the Parties from the responsibility of continuing to seek to resolve it by the means referred to in paragraph 1, above.

3. When ratifying, accepting, approving or acceding to this Convention, or at any time thereafter, a State or regional economic integration organisation may declare that

it recognises as compulsory ipso facto and without special agreement, in relation to any Party accepting the same obligation:

(a) Submission of the dispute to the International Court of Justice; and/or

(b) Arbitration in accordance with the procedure set out in annex III.

Such declaration shall be notified in writing to the Secretariat which shall communicate it to all Parties.

ARTICLE 12
Signature

This Convention shall be open for signature by States and by regional economic integration organisations in [ ] from [ ] to [ ], and at the United Nations Headquarters in New York from [ ] to [ ].

ARTICLE 13
Ratification, Acceptance or Approval

1. This Convention and any protocol shall be subject to ratification, acceptance or approval by States and by regional economic integration organisations. Instruments of ratification, acceptance or approval shall be deposited with the Depositary.

2. Any organisation referred to in paragraph 1 above which becomes a Party to this Convention or any protocol without any of its member States being a Party shall be bound by all the obligations under the Convention or the protocol, as the case may be. In the case of such

organisations, one or more of whose member States is a Party to the Convention or relevant protocol, the organisation and its member States shall decide on their respective responsibilities for the performance of their obligations under the Convention or protocol, as the case may be. In such cases, the organisation and the member States shall not be entitled to exercise rights under the Convention or relevant protocol concurrently.

3. In their instruments of ratification, acceptance or approval, the organisations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organisations shall also inform the Depositary, who will in turn inform the Parties, of any substantial modification in the extent of their competence.

ARTICLE 14

Accession

1. This Convention and any protocol shall be open for accession by States and by regional economic integration organisations from the day after the date on which the Convention or the protocol concerned is closed for signature. The instruments of accession shall be deposited with the Depositary.

2. In their instruments of accession, the organisations referred to in paragraph 1 above shall declare the extent of their competence with respect to the matters governed by the Convention or the relevant protocol. These organisations shall also inform the Depositary of any substantial modifications in the extent of their competence.

3. The provisions of article 13, paragraph 2, shall apply to regional economic integration organisations that accede to this Convention or to any protocol.

ARTICLE 15
Right to Vote

1. Except as provided for in paragrpah 2 below, each Party to this Convention or to any protocol shall have one vote.

2. Regional economic integration organisations, in matters within their competence, shall exercise their right to vote with a number of votes equal to the number of their member States that are Parties to the Convention or the relevant protocol. Such organisations shall not exercise their right to vote if their member States exercise theirs, and vice versa.

ARTICLE 16
Relationship between the Convention and its Protocols

1. Except as otherwise provided in a protocol for the purposes of that instrument, the provisions of this Convention relating to its protocols shall apply to any protocol to this Convention.

2. Decisions concerning any protocol shall be taken only by the Parties to the protocol concerned.

3. A State or regional economic integration organisation may not become a Party to a protocol unless it is, or becomes at the same time, a Party to the Convention.

ARTICLE 17

Entry into Force

1. This Convention shall enter into force on the ninetieth day after the date of deposit of the fortieth instrument of ratification, acceptance, approval or accession.

2. Any protocol, except as otherwise provided in such protocol, shall enter into force on the ninetieth day after the date of deposit of the fortieth instrument of ratification, acceptance or approval of such protocol or accession thereto.

3. For each State or regional economic integration organisation that ratifies, accepts or approves this Convention or accedes thereto after the deposit of the fortieth instrument of ratification, acceptance, approval or accession, it shall enter into force on the ninetieth day after the date of deposit by such Party of its instrument of ratification, acceptance, approval or accession.

4. Any protocol, except as otherwise provided in such protocol, shall enter into force for a State or regional economic integration organisation that ratifies, accepts or approves that protocol or accedes thereto after its entry into force pursuant to paragraph 2 above, on the ninetieth day after the date on which the party deposits its instrument of ratification, acceptance, approval or accession, or on the date on which the Convention enters into force for that Party, whichever shall be the later.

5. For the purposes of paragraphs 1 and 2 above, any instrument deposited by a regional economic integration organisation shall not be counted as additional to those deposited by member States of such organisation.

ARTICLE 18
Reservations and Declarations

1. No reservations may be made to this Convention.

2. Except as otherwise provided in any protocol, no reservations may be made to a protocol.

3. Paragraphs 1 and 2 above shall not, however, preclude a State or regional economic integration organisation, when signing, ratifying, accepting, approving or acceding to this Convention or a protocol, from making declarations or statements, however phrased or named, with a view, inter alia, to the harmonisation of its laws and regulations with the provisions of this Convention or the protocol concerned, provided that such declarations or statements do not purport to exclude or to modify the legal effect of the provisions of the Convention or the protocol concerned in their application to that State or regional economic integration organisation.

ARTICLE 19
Withdrawal

1. At any time after three years from the date on which this Convention has entered into force for a Party, that Party may withdraw from the Convention by giving written notification to the Depositary.

2. Except as otherwise provided in any protocol, at any time after three years from the date on which such protocol has entered into force for a Party, that Party may

withdraw from the protocol by giving written notification to the Depositary.

3. Any such withdrawal shall take effect upon expiry of one year from the date of its receipt by the Depositary, or on such later date as may be specified in the notification of the withdrawal.

4. Any Party that withdraws from this Convention shall be considered as also having withdrawn from any protocol to which it is a Party.

ARTICLE 20
Depositary

The Secretary-General of the United Nations shall be the Depositary of this Convention and of any protocols thereto.

ARTICLE 21
Authentic Texts

The originals of this Convention, of which the Arabic, Chinese, English, French, Russian and Spanish texts are equally authentic, shall be deposited with the Secretary-General of the United Nations.

In witness whereof the undersigned, being duly authorised to that effect, have signed this Convention.

Done at.....this.....day of..... 19.....

ANNEX I
RESEARCH AND SYSTEMATIC OBSERVATIONS

(To be drafted)

ANNEX II
INFORMATION EXCHANGE

(To be drafted))

ANNEX III
ARBITRATION

Article 1

Unless the Parties to a dispute otherwise agree, the arbitration referred to in Article 11 of the Convention shall be conducted in accordance with the procedure set out in articles 2 to 16 below.

Article 2

The claimant party shall notify the Secretariat that the parties are referring a dispute to arbitration pursuant to Article 11, paragraph 2, of the Convention. The notification shall state the subject matter of the arbitration and include, in particular, the articles of the Convention or the protocol, the interpretation or application of which,

or compliance with which, are at issue. The Secretariat shall forward the information thus received to all Parties to the Convention or to the protocol concerned.

Article 3

1. In disputes between two parties, the arbitral tribunal shall consist of three members. Each of the parties to the dispute shall appoint an arbitrator and the two arbitrators so appointed shall designate by common agreement the third arbitrator who shall be the chairman of the tribunal. The latter shall not be a national of one of the parties to the dispute, nor have his usual place of residence in the territory of one of these parties, nor be employed by any of them, nor have dealt with the case in any other capacity.

2. In disputes between more than two parties, parties in the same interest shall appoint one member of the tribunal jointly by agreement.

3. Any vacancy shall be filled in the manner prescribed for the initial appointment.

Article 4

1. If the chairman of the arbitral tribunal has not been designated within two months of the appointment of the second arbitator, the Secretary General of the United Nations shall, at the request of a Party, designate him within a further two months' period.

2. If one of the parties to the dispute does not appoint an arbitrator within two months of receipt of the request, the other party may inform the Secretary-General of

the United Nations, who shall designate the other arbitrator within a further two months' period.

Article 5

The arbitral tribunal shall render its decision in accordance with international law, as well as the provisions of this Convention and any protocols concerned.

Article 6

Unless the parties to the dispute otherwise agree, the arbitral tribunal shall determine its own procedure, assuring that each Party has a full opportunity to be heard and to present its case.

Article 7

The Parties to the dispute shall facilitate the work of the arbitral tribunal and, in particular, using all means at their disposal, shall:

(a) Provide it with all relevant documents, facilities and information; and

(b) Enable it when necessary to call witnesses or experts and receive their evidence.

Article 8

The parties and the arbitrators are under an obligation to protect the confidentiality of any information they receive in confidence during the proceedings of the arbital tribunal.

Article 9

Unless the arbital tribunal determines otherwise because of the particular circumstances of the case, the costs of the tribunal shall be borne by the parties to the dispute in equal shares. The tribunal shall keep a record of all the costs, and shall furnish a final statement thereof to the parties.

Article 10

Any Party to the Convention or, as the case may be, to a Protocol thereto, that has an interest of a legal nature in the subject matter of the dispute that may be affected by the decision in the case, may intervene in the proceedings with the consent of the tribunal.

Article 11

The tribunal may hear and determine counterclaims arising directly out of the subject matter of the dispute.

Article 12

Decisions both on procedure and substance of the arbitral tribunal shall be taken by a majority vote of its members.

Article 13

If one of the parties to the dispute does not appear before the arbital tribunal or fails to defend its case, the other party may request the tribunal to continue the proceedings and to render its final decision. Absence of a party or failure of a party to defend its case shall not constitute a bar to the proceedings. Before rendering its final decision, the arbitral tribunal must satisfy itself that the claim is well founded in fact and law.

Article 14

The tribunal shall render its final decision within five months of the date on which it is fully constituted unless it finds it necessary to extend the time limit for a period which shall not exceed a further five months.

Article 15

The final decision of the arbitral tribunal shall be confined to the subject matter of the dispute and shall state the reasons on which it is based. It shall contain the names of the members who have participated and the date of the final decision. Any member of the tribunal may attach a separate or dissenting opinion to the final decision.

Article 16

The final decision shall be without appeal unless the parties to the dispute have agreed in advance to an appellate procedure. It shall be complied with by the parties to the dispute.

Article 17

Any controversy that may arise between the parties to the dispute as regards the interpretation or manner of implementation of the final decision may be submitted by either party for decision to the arbitral tribunal which rendered it.

PAPER NO. 10: UNITED KINGDOM

DRAFT UK PAPER ON POSSIBLE ELEMENTS FOR INCLUSION IN A FRAMEWORK CONVENTION ON CLIMATE CHANGE

The UK, as joint co-ordinator of the Inter-Governmental Panel on Climate Change Topic Group on Legal Measures, has prepared a draft framework convention based on the common elements identified in the Group's report. Copies of this text were made available to all delegations during the first meeting of the Inter-Governmental Negotiating Committee, and a further copy is annexed to this note.

The UK made clear when it circulated this text that it did not represent our views on the overall scope of the convention. We believe however that it provides a sound basis for initial discussions and agreement, and the framework within which other substantive elements proposed for inclusion could be discussed.

The rest of this note sets out the UK's initial views on other elements which should be included in the framework convention in extension of that text.

PREAMBLE

1. The preamble should recall all recent UNGA resolutions on climate change, and the Ministerial declaration from the Second World Climate Conference.

2. The preamble should recognise the common but differentiated responsibilities of all states.

3. The preamble should acknowledge the need for co-operation between developed and developing countries to enable the latter to play a full part in the international response to climate change.

4. The preamble should recognise the desirability of adopting,

over time, a comprehensive approach, embracing all greenhouse gases, sources and sinks, in action to combat the adverse effects of climate change, as advances in scientific and technological knowledge permit this.

5. The preamble should recognise that parties may want to make joint arrangements to meet their obligations under the Convention and its associated Protocols.

6. The preamble should recognise the particular vulnerability to climate change of low-lying and small island states and arid and semi-arid areas of the world.

GENERAL OBLIGATIONS

The Convention should contain the following general obligations, in addition to those set out in the common elements text.

1. To undertake co-ordinated action with the ultimate global objective of stabilising the climate change effect of greenhouse gases at a level which would prevent dangerous anthropogenic interference with the climate.

2. To adopt, as quickly as possible, measures which will have the effect of limiting emissions of greenhouse gases and which are beneficial for reasons other than climate change, and justified in economic terms.

3. To encourage, taking into account the particular needs of developing countries, the development and rapid diffusion of technologies, best practice, training and other skills which could contribute to the control and limitation of greenhouse gas emissions and the protection and enhancement of sinks for greenhouse gases.

SPECIFIC OBLIGATIONS

1. All States should commit themselves to preparing, and submitting to the Secretariat, national targets or strategies which will limit emissions of greenhouse gases and protect and enhance sinks for greenhouse gases. These should describe -

- current levels and sources of greenhouse gas emissions;

- projected future levels of greenhouse gas emissions;

- current forest areas;

- estimated future forest areas;

- the measures already in hand to control emissions of greenhouse gases and protect and enhance sinks and reservoirs;

- potential and/or planned additional measures in these regards.

- the likely impact that these measures will have on future levels of emissions of greenhouse gases and forest areas and other sinks and reservoirs, and their cost effectiveness.

2. Developed countries should undertake to provide such strategies to the Secretariat one year after entry into force of this convention for them. Developing countries should undertake to do so within two years. Developed countries should commit themselves to cooperating with developing countries on the preparation of such strategies through the provision of financial and technical assistance.

3. In formulating these strategies, developed countries should agree to take as guidelines that stabilisation of greenhouse gas emissions should be achieved by them as soon as possible. For CO_2, stabilisation of emissions should be achieved by them as

soon as possible, in general at present levels.

4. Developing countries should agree to take as a guideline that they will keep future net growth of greenhouse gas emissions to the lowest level possible, having due regard to their development requirements and their capabilities.

5. The more specific obligations which countries will enter into shall be elaborated in protocols to this convention.

6. Parties will ensure that the measures they take, as described in their national strategies are consistent with the obligations of other relevant international instruments and do not serve to introduce trade barriers between Parties to this convention.

7. To help developing countries to meet the incremental costs required to achieve further limitation of greenhouse gas emissions, and to help them meet their specific obligations under the Convention, developed countries agree to mobilise financial resources for developing countries through the Global Environment Facility of the World Bank/UNEP/UNDP and to take steps to improve the speed and diffusion to developing countries of environmentally sound technologies on a fair and most favourable basis (SWCC).

8. All States undertake to promote the protection and enhancement of sinks and reservoirs for greenhouse gases. In particular, States agree to set appropriate national forestation targets which take account of their different circumstances and comprise targets for the maintenance of existing forest area or re and afforestation.

9. Developed countries commit themselves to support the actions of developing countries to protect and enhance sinks and reservoirs through technical and financial co-operation.

10. The Conference of the Parties shall establish an executive body or a review panel to receive, analyze and disseminate the information contained in the national strategies and the progress reports submitted by the Parties. Its task will be -

- to assess and compare the measures adopted by individual nations and to circulate to all Parties, through the Secretariat, technical and economic information on their implementation and cost effectiveness;

- to help, upon request, any Party to devise and implement further measures in their national strategies based on the information received.

Developed countries undertake to co-operate with developing countries to help them to take full advantage of the work of the Executive Body or Review Panel.

11. Each State Party to this Convention will also prepare, and submit to the Secretariat in good time before each meeting of the Conference of the Parties, a report on its current progress in meeting its obligations under the Convention, and its expected progress towards completing its obligations.

MONITORING AND COMPLIANCE

1. The review panel or executive body whose establishment is proposed under the specific obligations section should be charged with the task of considering the progress reports which each Party would be required to submit to the Secretariat before each meeting of the Conference of Parties.

2. Where the panel judge that additional action is needed in order to ensure that a Party meets its obligations, it should be required to report that finding, through the Secretariat, to the State concerned. The Secretariat should then consult with the State to determine what further steps might be taken.

3. If, when the Panel receives the next progress report from the State concerned, it judges that additional action is still required, the Panel should report this to the next meeting of the Conference of the Parties so that the Conference can determine what further action, including assistance to the Party concerned, would be appropriate.

ADOPTION OF PROTOCOLS

1. The parties to the Convention should commit themselves to making every possible effort to adopt a protocol including specific obligations on sources of greenhouse gases, in particular CO_2 , and a protocol on sinks for greenhouse gases, in particular forests, at the second regular meeting of the conference of parties to the Convention.

ENTRY INTO FORCE

1. The convention should come into force on the ninetieth day after the date of receipt of the [xth] instrument of ratification, acceptance, approval or accession, or after receipt of ratification etc from parties whose net emissions of greenhouse gases represent [y%] of estimated total global net emissions in an appropriate year, whichever is the later.

March 15, 1991

PAPER NO. 11: UNITED STATES OF AMERICA

SUBMISSION OF THE UNITED STATES TO THE INTERGOVERNMENTAL NEGOTIATING COMMITTEE ON CLIMATE CHANGE

The United States welcomes this opportunity to provide its views on the elements to be included in a framework convention on climate change. We believe that the Legal Measures paper of Working Group III of the Intergovernmental Panel on Climate Change (IPCC) provides a good starting point for discussions within the Intergovernmental Negotiating Committee (INC). The work of the INC has also been facilitated by the United Kingdom's submission of a draft framework convention that reflects the consensus elements of the IPCC Legal Measures paper in the form of a legal text. We offer the following views on elements that should be included in a framework convention on climate change:

Preamble

The IPCC Legal Measures paper and the UK draft convention contain many appropriate preambular clauses. In particular, the preamble should:

(a) acknowledge that climate change is a common concern of the international community;

(b) recall the relevant resolutions of the United Nations General Assembly, particularly resolution 45/212;

(c) recall relevant declarations, such as the Ministerial Declaration of the Second World Climate Conference, the Bergen and Noordwijk Ministerial Declarations, the Declaration of the 1990 Houston Economic Summit and principle 21 of the Declaration of the United Nations Conference on the Human Environment (Stockholm 1972);

(d) recognize the interdependence of environmental protection and economic growth, and the need to pursue strategies of global stewardship that advance both these goals;

(e) recognize, welcome and encourage measures that are being taken or have already been taken at the national, regional and international levels that help address issues of climate change, including relevant national actions and actions taken pursuant to the Vienna Convention for the Protection of the Ozone Layer, the Montreal Protocol on Substances that Deplete the Ozone Layer and other international agreements;

(f) recognize that different nations have different social, economic and other circumstances, including different sets of net emissions, and will accordingly need flexibility in the choice of any response options;

(g) acknowledge the important scientific work that has already taken place, particularly that of the IPCC and other international bodies (e.g., the World Meteorological Organization (WMO), the United Nations Environment Program (UNEP), the International Council of Scientific Unions (ICSU), the International Geosphere-Biosphere Program (IGBP) and the Intergovernmental Oceanographic Commission (IOC));

(h) endorse further scientific research and systematic observation and further study of possible social and economic impacts of climate change, and of measures that might be used to address them;

(i) recognize that strategies to understand and address climate change will be most environmentally effective and most economical if they address all sources, sinks and reservoirs of greenhouse gases and their precursors comprehensively, are based on, and continually reevaluated in light of, relevant scientific, technical, and economic considerations, and are as equitable and economically efficient as possible.

(j) recognize that each greenhouse gas has a different effect on climate and impact on climate change, as well as other important impacts on the environment, all of which need to be taken into account in selecting sound response strategies;

(k) stress the need for all nations to participate in any international responses to climate change, in accordance with the means at their disposal and their capabilities;

(l) reaffirm that lack of full scientific certainty should not be used as a reason for postponing measures that are commensurate with the expected extent and likelihood of any adverse impact of climate change, that reflect the costs and benefits of such measures, and that are directed, as appropriate, towards understanding, limiting, reducing, facilitating adaptation to and preventing such adverse impacts.

Definitions

Following are definitions of terms used in this submission, which could be included in the convention:

"Climate" means the average weather (including its appropriate components, such as temperature, precipitation and wind) over a

period of years, together with the natural variations of those components.

"Climate change" means the variation in the climate beyond what is attributable to natural variability.

"Impacts" means effects on human health, economic activity, social systems, water resources, agriculture, sea levels, and natural and managed ecosystems.

"Greenhouse gases" means gases which alter the radiative transmissive properties of the atmosphere, principally through impeding the emission of long-wave terrestrial radiation.

"Greenhouse gas precursors" means substances that interact in the atmosphere to produce greenhouse gases indirectly or that prolong the atmospheric lifetimes of greenhouse gases.

"Greenhouse gases and their precursors" means greenhouse gases and greenhouse gas precursors.

"Sinks" means all anthropogenic and biogenic activities and processes that remove greenhouse gases and their precursors from the atmosphere.

"Sources" means all anthropogenic and biogenic activities and processes that lead to greenhouse gases and their precursors being emitted into the atmosphere.

"Reservoirs" means storage media for greenhouse gases and their precursors.

"Net emissions" means emissions from sources minus removals by sinks.

"Greenhouse warming potential index ('GWP')" is an index that defines the time-integrated warming effect due to the release of a unit mass (1 kg) of a given greenhouse gas relative to that of carbon dioxide.

"Cooperative arrangement" means any arrangement whereby any group of two or more countries cooperates together to achieve the objectives of the convention or any subsidiary instrument.

General Obligations

The framework convention should provide mechanisms for developing the scientific, technical, economic and environmental bases for formulating and implementing, as appropriate, measures to address the potential modification of

climate caused by greenhouse gases and the possible adverse impacts therefrom. It should require the Parties to develop and pursue, in accordance with the provisions of the convention and to the extent deemed desirable in light of the scientific, technical, economic, and environmental bases outlined above, appropriate measures that prevent, limit, reduce, or facilitate adaptation to climate change. The Parties, in developing and taking such measures, should address the net emissions of all greenhouse gases and their precursors comprehensively, taking into account the best available greenhouse warming potential index ("GWP") and other environmental impacts of the gases. The framework convention should enable the Parties to fashion economically efficient and effective implementation, including through the use of cooperative arrangements. It should also recognize and encourage actions taken by nations that help address climate change, including national actions and actions under other international agreements.

To these ends, the Parties should:

(a) cooperate in systematic observations, research and information exchange to better monitor, understand, and predict changes in the global climate, their impacts, potential responses thereto and the costs and benefits of such responses;

(b) adopt measures which are justified for a variety of reasons, and which also have the effect of limiting or adapting to any adverse effect of climate change;

(c) develop and make public national inventories of net emissions, using an agreed methodology that is developed in light of the work of the IPCC;

(d) establish national strategies to address and facilitate mitigation of and adaptation to climate change and make public an accounting of the elements of such strategy and their effect on net emissions;

(e) base any additional responses on thorough assessments, by the IPCC and other competent international bodies, of climate change and potential responses to that change;

(f) cooperate in promoting public awareness of climate change;

(g) encourage the development and transfer of relevant technologies, as well as the provision of technical and financial assistance, to facilitate the fulfillment by the developing countries of their obligations;

(h) cooperate with competent international bodies.

The article on general obligations should include a provision in which the Parties agree that, in developing and implementing measures pursuant to the convention or any subsidiary instrument, they should take into account other types of environmental impacts that such measures could have. In addition, the convention should provide the opportunity for Parties to meet their obligations under the convention and any subsidiary instrument through bilateral, multilateral or regional cooperative arrangements. The Convention and subsidiary instruments should also recognize and count the effect on net greenhouse gas emissions of relevant actions taken under national policy and other international agreements.

Institutions

The articles of the UK draft convention establishing a conference of the Parties and a secretariat (UK draft articles 6 and 7) are generally acceptable. However, whereas the UK draft provides that the interim secretariat would be provided by UNEP, we believe that both UNEP and WMO should provide interim secretariat assistance.

Research, Systematic Observation, and Information Exchange

A strong program of research, systematic observation and information exchange must be a cornerstone of the framework convention. An aggressive effort to obtain better information is an environmentally essential strategy that will help the international community to tailor response strategies that are appropriate, effective and sustainable over the long term.

The research and systematic observation article (Article 3) and information exchange article (Article 4(1)) of the UK draft convention provide a good starting point for convention text on research, systematic observation and information exchange. The Parties' obligations should extend to scientific, economic and social research, and the Parties should consider both the social and economic costs and benefits of changes to the global climate and of potential responses to those changes. The information exchange provisions of the framework convention should include information on net emissions inventories, emissions and removal rates for various sources and sinks, means of measuring emissions and sink removal, and national strategies, including actions taken, costs, and effectiveness.

During the first meeting of the INC, scientists from several delegations held informal meetings, under the chairmanship of Dr. A. Baede of the Netherlands delegation, to develop an inventory of priorities for research, systematic observations, assessments and information exchange. This

informal work could provide a useful starting point for the preparation of annexes to the framework convention concerning research and systematic observation and information exchange.

Assessment and Consideration of Response Measures

Specific commitments for emissions reductions should not be included in the framework convention, because of the need for flexibility in nations' choices of their own measures. Further, there is a real need for further analysis of the costs and benefits of international responses, at the same time that prudent steps may be taken by nations even in the face of great uncertainty. Accordingly, the framework convention should include an article on assessment and response measures that is modelled on Article 6 of the Montreal Protocol on Substances that Deplete the Ozone Layer and that requires the Parties to periodically assess the available scientific, technical, and economic information with respect to:

(a) greenhouse gases and their precursors and their effects on climate;

(b) the possible impacts of such effects; and

(c) possible response measures that could be taken at the national, regional, and/or international levels.

As part of this work, the Parties should be required, as necessary, to update and to make public, using a standardized methodology developed in light of the work of the IPCC and other competent international bodies, national inventories of all sources and sinks of greenhouse gases and their precursors.

In light of this work, the Parties would be obligated:

(a) to update national, regional, and international strategies and policies to limit, reduce, facilitate adaptation to, and as far as appropriate, to prevent the adverse impacts of climate change, in accordance with the provisions of the convention and any subsidiary instrument;

(b) to update programs for research, systematic observation, information exchange, and the development and transfer of technology and knowledge;

(c) to consider and undertake any additional action that may be appropriate in light of the purposes of the convention.

In the assessment and consideration of response measures, and in particular, in the development of national, regional and

international response strategies, the Parties should take into account the best available GWP. In addition, the Parties should consider, in consultation with the IPCC and other relevant international bodies, whether the GWP should be revised at some future date.

Development and Transfer of Technology

Article 4(2) of the UK draft convention addresses the development and transfer of technology and is generally acceptable. It provides that the Parties, consistent with their national laws, regulations and practices, shall cooperate in promoting, directly or through competent international bodies, the development and transfer of technology and knowledge relevant to scientific and technical research. The UK draft provides for such cooperation through the supply of necessary equipment and facilities for research and monitoring and through appropriate training of scientific and technical personnel.

Settlement of Disputes and Compliance

We note the suggestion in the IPCC Legal Measures paper that dispute settlement provisions similar to those in the Vienna Convention for the Protection of the Ozone Layer might be employed in the framework climate convention. This suggestion is reflected in Article 11 of the UK draft convention and in Annex III thereto. We believe that it is important that all Parties comply fully with the obligations that they undertake in the framework convention and any subsidiary instrument thereto. Dispute settlement provisions are one means of achieving such objective, as are other mechanisms, such as the compliance procedures developed by the parties to the Montreal Protocol. To be most effective, however, such procedures and mechanisms should be tailored to specific obligations contained in a given agreement. Accordingly, these questions should be considered after the INC has reached agreement on the substantive obligations to be included in the framework convention.

Final Clauses

The final clauses contained in the UK draft convention (Articles 8-10 and 12-21) are generally acceptable. However, we believe that the procedures for entry into force of protocols, amendment of protocols, and withdrawal from protocols, as well as the provisions relating to the proposal, adoption, and entry into force of annexes to protocols, should be left to any such protocol. This would permit the Parties to tailor those provisions to any particular protocol.

PAPER NO. 12: SCIENTISTS FROM A WIDE RANGE OF DELEGATIONS

February 14, 1991

Inventory on Research, Systematic Observations, Assessments and Information Exchange

During the first meeting of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC) in Washington, 4-14 February 1991, scientists from a wide range of delegations, representing natural and social sciences, met informally to compile an Inventory of priority needs for research, systematic observations, assessments and information exchange, which at a later stage could contribute to drafting language for the Preamble, Articles and/or Annexes of the Convention or related legal instruments.

The following individuals/countries were represented in the ad hoc non-group meeting:

A. Baede (chair)	Netherlands
M. Vanderstraeten	Belgium
D. Russell	Canada
H. Hengeveld	Canada
S. Shim	Korea
P. Melnikov	USSR
J. Shiino	Japan
M. Perdomo	Venezuela
L. Balairon	Spain
W. Kininmonth	Australia
J. Von Dadelszen	New Zealand
J. Labrousse	France
A. Kulmala	Finland
A. Sutera	Italy
J. Luo	China
J. Poncelet	Belgium
L. Meira	Brazil
P. Bakken	Norway
M. Rochas	France
A. Speranza	Italy
I. Droghici	Romania
R. Godin	UNESCO/IOC
S. Kirby	Canada
K. Cunliffe	New Zealand
D. Phantumvanit	Thailand
R. Watson	USA
D. Albritton	USA
V. Baldirev	WMO
J. Pershing	USA
M. Yerg	WMO
H. Gruenspecht	USA

All countries are invited to contribute to any future elaborations of this Inventory.

In particular these scientists felt that an Annex on Research and Systematic Observations would:

* underscore the role of research and systematic observations in providing the scientific and economic basis for policy decisions,

* outline the priority areas of scientific, technical and economic research needed to support decision making,

* provide the means to:

  (i) address the special research and technical training needs of developing countries,

  (ii) promote broad co-operation among national and international research programmes, and

  (iii) state the requirements for regular scientific and economic assessments.

It should be stressed that this Inventory or the corresponding language in the Convention would not in itself initiate research programmes nor replace the IPCC-process, but rather would form the basis for Parties or competent international bodies to carry out such activities.

It should moreover be stressed that the present Inventory is incomplete and that in particular paragraphs 6-11 require further elaboration.

This Inventory has been made available to the Secretariat of the INC.

Annex I: Inventory.

Annex I - Draft: February 13, 1991

Inventory on Research, Systematic Observations, Assessments and Information Exchange

1. Goal Statement: The goal is to establish a basis for the Parties to initiate and cooperate in, directly or through competent international bodies, the conduct of research, systematic observations and scientific assessments related to natural and anthropogenic changes in the global climate system. To achieve this the following objectives should be borne in mind:

   a. Better understanding of the climate systems, including:

      i. improving climate observing systems and data exchange;

      ii. conducting research into physical, chemical, biological, geological, social, and economic processes affecting climate; and

      iii. improving climate prediction at regional and global scales;

   b. Better understanding of the global, regional and local impacts of climate changes, including:

      i. improving environmental observing systems for this purpose;

      ii. conducting research into physical, chemical, biological, geological, social, and economic processes affected by climate; and

      iii. improving prediction of climatic impacts at regional and global scales;

   c. Further developing methodologies for mitigation and adaptation to climate change.

2. Identifying the priority needs (in no particular order) for research and systematic observations required to understand the climate system including:

   a. GHGs, aerosols and precursors:

      i. anthropogenic and natural sources and sinks;

      ii. abundances and trends;

iii. radiative properties;

b. Atmospheric radiation, heat and water budget:

i. role of clouds and water vapor;

ii. precipitation;

iii. solar radiative input and atmospheric transmission;

iv. surface albedo;

c. Oceanic systems:

i. ocean dynamics;

ii. ocean/atmospheric interaction;

iii. sea-level changes;

d. Terrestrial systems:

i. surface and sub-surface hydrological processes;

ii. land-surface/atmosphere interactions;

e. Cryosphere:

i. permafrost;

ii. polar ice sheets;

iii. sea ice;

iv. glaciers;

f. Economic and social systems:

i. influence of economic growth on the climate system

ii. influence of technology and practice in a wide range of sectors (including, for example, energy, agriculture, and industry) on the climate system ;

iii. influence of social systems on climate;

3. Identifying the <u>research and systematic observations</u> needed to <u>evaluate local, regional and global impacts of climate change,</u> including:

a. Natural ecosystems and resources including biological diversity:

   i. terrestrial ecosystems;

   ii. aquatic ecosystems;

   iii. coastal ecosystems;

b. Managed ecosystems:

   i. agriculture;

   ii. fisheries;

   iii. forestry;

c. Water resources;

d. Coastal environments;

e. Social systems and economics:

   i. human health;

   ii. standard of living;

   iii. social and economic impacts;

   iv. social institutions;

   v. human population dynamics;

   vi. built environment and infrastructure;

f. Valuation of impacts

4. Identifying the research needed <u>to develop methodologies on mitigation and adaptation to climate change</u>, including:

a. Reducing sources and increasing sinks of GHGs through:

   i. technological innovation (particularly with respect to production and consumption of energy);

   ii. improving forestry and agricultural practices;

   iii. investigating economic and other instruments;

iv. improving education and public information techniques;

b. Developing methods to adapt to a changing climate by:

i. understanding natural and managed ecosystem adaptation;

ii. developing methodologies to protect the coastal environment and to defend low-lying countries against rising sea level;

iii. stimulating social adaptation;

iv. improving education and public information techniques;

c. Addressing methodological issues relevant to the assessment of the costs and benefits of adaptation and mitigation responses;

d. Researching the costs, benefits and social consequences of response strategies;

i. examining how changes in the timing or magnitude of climate change alter its impacts;

ii. examining the direct and indirect links between responses and economic activity, including trade;

iii. examining distributional implications of responses within and across economies;

5. Integrated modeling and climate prediction:

a. Developing, improving, and validating models of social activities, climate processes and impacts;

b. Improving parameterization of processes involved (including, chemical, physical, biological, geological, social and economic);

c. Evaluating the predictability of climate;

6. Developing a Global Climate Observing System (GCOS) (text may be similar to that contained in the SWCC Conference Statement);

7. Approaches to standardized data sets and data information systems;

8. Enhancing the full and open exchange of data and information and the systems that accomplish this;

9. Role of national and international organizations;

10. Periodic comprehensive scientific, technical and socio-economic assessments;

11. Cooperation among developed and developing countries, taking into account the particular needs of the latter (text may be similar to that contained in the SWCC Conference Statement)